

1911.

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SIXTH JOINT

ANNUAL REPORT

of the

Medical Officer of Health

of the

ATCHAM COMBINED
SANITARY DISTRICT
....in the County of Salop....



Comprising the
ATCHAM, CHURCH STRETTON, CLUN,
NEWPORT, and WHITCHURCH
RURAL DISTRICTS.
DAWLEY, NEWPORT, and WHITCHURCH
URBAN DISTRICTS.
and the
BOROUGH OF BISHOP'S CASTLE
AND BOROUGH OF WENLOCK.

MEDICAL OFFICER OF HEALTH :

MAURICE GEPP, D.P.H. (London), L.R.C.P. (Edin).

Address, SHREWSBURY.

ATCHAM COMBINED DISTRICT.

REPORT of the Medical Officer of Health, for the year ended Dec. 31st, 1911.

The Combined District was formed in 1897, by agreement among the Councils and under official sanction of the Local Government Board, for the purpose of appointing a Medical Officer of Health. A Joint Committee was formed, and met to arrange the salary and appointment of a Medical Officer of Health. The present Medical Officer of Health was appointed for one year on December 18th, 1897, and has been re-appointed in December, 1898, December, 1903, and December, 1908, for a period of five years on each occasion. The Joint Committee has not met since the date of the first appointment, the re-appointments being made by separate re-election to each of the Councils in the Combination. The salary of the Medical Officer of Health is £375 per annum, to include all travelling, stationery, and other expenses, one half of the salary being repaid to the Councils by the County Council. The Medical Officer of Health is debarred from private medical practice, but may hold other public health appointments by consent of the Councils. He holds the appointment of Medical Officer of Health to the Church Stretton Urban District Council, outside the Combined District.

From 1897 to June, 1908, the Medical Officer of Health held office as Medical Officer of Health to the Borough of Shrewsbury, but resigned this post owing to the great increase of public health work, and especially owing to the new work of School Medical Inspection making it desirable for the Corporation to appoint an officer to devote his whole time to the work of the Borough.

In 1908 the Medical Officer of Health was appointed Supervising School Medical Officer to the Borough of Wenlock Local Education Authority. He held this office until the end of March of the present year, at which time the Borough of Wenlock transferred its powers as Education Authority to the County Council, and the latter Authority has taken over the control of the Borough Schools, the medical supervision of schools being now in the hands of the County Medical Officer as regards the whole of the Atcham Combined District.

The following Table gives the Districts forming the Combination and some particulars :—

	Area in Acres.	Popu- lation, Census 1911.	Rateable Value March 25, 1911.	Proportion of Salary of M.O.H., 1911.
			£	£ s. d.
Atcham Rural District	123200	21770	216477	151 4 8
Church Stretton Rural District	45018	4797	54353	37 19 8
Clun Rural District ..	81915	6565	67421	47 2 0
Newport Rural District	22617	6005	45801	31 19 8
Whitchurch Rural Dis- trict	11645	1935	20607	14 8 0
Dawley Urban District	2755	7701	17270	12 1 4
Newport Urban District	761	3250	14704	10 5 4
Whitchurch Urban Dis- trict	4725	5757	30608	21 7 8
Borough of Bishop's Castle	1866	1409	6569	4 11 8
Borough of Wenlock ..	22522	15244	62986	44 0 0
Ten Districts ..	319024	74433	£536796	£375 0 0

The Census of last year shows the population of the Combined District to have increased by 1,050 persons in the ten years 1901 to 1911, the figures for each District being as follows :—

		Population 1901—1911.	
		Increase.	Decrease.
Atcham Rural District		875	—
Church Stretton Rural District		318	—
Clun Rural District		—	259
Newport Rural District		—	28
Whitchurch Rural District ..		11	—
Dawley Urban District		179	—
Newport Urban District ..		9	—
Whitchurch Urban District ..		536	—
Borough of Bishop's Castle ..		31	—
Borough of Wenlock		—	622

It is satisfactory to record an increase in seven of the ten Districts. In the preceding ten years 1891—1901 there was a decrease in seven Districts, increases being recorded only in the Dawley, Whitchurch and Wenlock Urban Districts, the nett decrease for the combined Districts being 878.

I think it opportune at the present time to state that the public health legislation of the past few years has largely increased the work and the responsibility of medical officers of health, and that the trend of such legislation is to demand increasing attention to the 'individual' in the community. The Housing and Town Planning, etc., Act, 1909, with the consequent issue of the Housing (Inspection of Districts) Regulations, 1910, and the issue of the Public Health (Tuberculosis) Orders and Regulations of 1908 and 1911 are specially in point in this connection, and have led me to the conviction that the Combined District is too large for efficient administration by one Medical Officer of Health under existing conditions, and that a division and re-arrangement is necessary in the interest of the Districts. The Medical Officer should be able to be in closer and more constant touch with his Districts and Councils, and with the Sanitary Inspectors. It may be pointed out that the Combined

District comprises actually thirteen Sanitary Authorities, the Borough of Wenlock being divided into four wards, each with a Sanitary Committee acting as a District Council. Merely to attend the meetings of the various Authorities with any such regularity as is desirable, and as is becoming necessary, would take up a full half of the Medical Officer's time. The area is too large and the distances to be covered too great. It will, I trust, be found possible to take some steps for re-arrangement by the end of this year.

Compulsory Notification of Pulmonary Tuberculosis (Phthisis).—This is by far the most important matter affecting Sanitary Authorities at the present time. By the Public Health (Tuberculosis) Regulations, 1911, all cases of pulmonary tuberculosis are required to be notified by medical practitioners to the Medical Officers of Health. The order came into force at the beginning of this year. Sanitary Authorities are given very wide powers for dealing with notified cases. The Medical Officer of Health is to enquire into the circumstances of the cases notified, and to take such steps as may appear to him to be necessary or desirable for preventing the spread of infection, and for removing conditions favourable to infection. The Sanitary Authority “on the advice of their Medical Officer of Health, may supply all such medical or other assistance and “all such facilities and articles as may reasonably be required “for the detection of pulmonary tuberculosis and for preventing “the spread of infection, and for removing conditions favourable “to infection, and for that purpose may appoint such officers. “do such acts and make such arrangements as may be necessary.”

A Sanitary Authority may therefore supply for the use of its District, hospitals for curative or isolation purposes, shelters for home treatment, and such minor matters as sputum mugs, disinfectants, 2nd paper handkerchiefs, and may also provide for nursing and for health visiting. At the present time little is being done in the Combined District to give effect to these Regulations beyond recording the cases notified. The question is a large one. If it be assumed that the number of cases of phthisis arising is about five per thousand of the population,

the number of notifications which might be expected in the Combined District would be over 350 per annum. The work of enquiring fully into these cases is laid upon the Medical Officer, and having regard to the responsibility of advising the Sanitary Authority as to individual cases, he should in every case have first hand knowledge of them. The work is not that of the Sanitary Inspector, who will, however, have special duties in making detailed inspection of houses in which cases occur, and in carrying out disinfection after notification and after removal or death of the patient.

Notification forms have been supplied to medical practitioners throughout the Districts, and I have a register of notifications for each District. The action taken so far has been for the Sanitary Inspectors to visit and disinfect in fatal cases and to supply leaflets of advice for the household. In a few cases where special circumstances have come to my knowledge, I have asked the Inspectors to inspect and report upon the houses under the Housing, etc., Regulations. I have not attempted routine visits of enquiry into the cases. The matter is one for which as I have stated above, new arrangements for the Combined District are desirable, and in the second place the whole procedure to be adopted by the Councils in these cases is one for very serious consideration, the issues involved being large and costly, and the whole question depending upon the measures of treatment to be provided by the Commissioners under the National Insurance Act. It would appear probable that a comprehensive scheme for dealing with pulmonary tuberculosis will take shape on a wide basis of the County as a whole, and the measures which will fall to the share of the Local Committees under the Insurance Act, to the County Council, and to District Councils will become clearer very shortly. In any case the receipt of notifications, and the initial enquiries made into cases, will no doubt remain among the duties of the Medical Officer of Health, and the supervision of the home condition of patients, in all details of health and prevention of infection, will fall to him under the Council. Provision of hospital isolation for advanced and incurable cases, and of health visitors for continued supervision of cases at home, may very probably require the consideration of the Councils.

Housing (Inspection of District) Regulations.—Action has been taken generally in the Combined Districts during the year, and a considerable number of houses inspected. A few houses, found to be incapable of satisfactory repair, have been closed, and some very good work has been done in most of the districts in enforcing thorough repair, in some cases amounting to a practical re-construction, of old and defective cottage property. I would urge that the work of inspection must be steadily proceeded with, the records of inspection being seriously considered at each meeting and definite directions given so as to keep the work of repair proceeding as closely behind that of inspection as is possible. I need not repeat my previous remarks as to the importance of this compulsory inspection of housing conditions, further than to say that if carried out earnestly it cannot fail to have the best results in bringing about improvements in the whole sanitary circumstances of cottage property and in checking decay due to neglect of owners in allowing cottages to fall into a state in which it is difficult to consider them fit for human habitation.

Hospital Isolation, and Disinfection.—I went somewhat fully into these questions in the last report, and stated my views in favour of a scheme of provision for the County as a whole. The County Medical Officer during last year reported upon the question of hospitals and advised the division of the County into areas for the purpose. I trust that action to carry into effect the suggestions made will be found practicable. The present would appear to be a specially opportune time for action, as provision for the isolation and treatment of phthisis cases will be imperative, and it will probably be found to be practical and economical to provide for the same hospitals to serve both purposes.

Health Visiting and Nursing.—In the last report I went into this question also and referred to the desirability of the establishment of a co-ordinated scheme for the County as a whole. This is a matter which I am glad to think appears to be

brought nearer to realisation by the necessity for dealing thoroughly and comprehensively with pulmonary tuberculosis, under the National Insurance Act and the Regulations of the Local Government Board. The other questions to which I referred last year as requiring health visitors and nurses for efficient public health administration are :—The reduction of infant mortality by visits paid to infants and mothers, and the prevention or reduction of the great loss of life and damage to health caused by epidemics of measles and whooping cough.

Adoption of notification in certain infectious diseases.—In last year's report I recommended the adoption of notification in the case of ophthalmia neonatorum, or destructive inflammation of the eye in new born infants. Recently, owing to outbreaks of acute polio-myelitis, and cerebro-spinal fever, in various parts of the country, the desirability of making these diseases notifiable in all Districts has become evident. Several of the Districts in the Combined area have now adopted notification, and I would advise the adoption of Notification of all three of these infectious diseases in all the Districts.

ATCHAM RURAL DISTRICT.

			1901	1911
Area in Acres (exclusive of water)	..	..	123200	123200
Population (Census)	..	..	20895	21770
Inhabited Houses (Census)	..	..	4329	—
Persons per house	..	..	4.8	—
Rateable Value, April 1st	..	..	—	£216477
A penny rate produces (about)	..	..	—	£665
No. of Parishes..	..	..	44	44
Death-rate per 1000	..	..	14.6	13.5
Birth-rate per 1000	..	..	25.4	22.3

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The District is a very large one, some 22 miles in length by some 14 in extreme breadth, its area being 125,207 acres. The river Severn runs through it from north-west to south-east, dividing it into two parts, of which the Northern and smaller part is continuous with the Midland plain, on the new Red Sandstone. The general elevation of this part is from 200 to 300 feet O.D. The Southern and larger part is more elevated, rising gradually from the river, southward and westward, from 200 to some 600 feet O.D., with considerably greater elevations on the hillsides which form the western and southern borders. The geological formation of this part is broken and diverse. The hills are the outliers of the Cambrian and Silurian ranges of Wales and Shropshire. There are also detached but considerable exposures of the coal measures and of the Permian Red Sandstone. There is in both parts a variable, but generally considerable, thickness of drift overlying the strata. The drainage is, on both sides, to the Severn, by numerous small tributary streams. The Borough and County town of Shrewsbury lies nearly in the centre of the district.

The District is entirely rural in character, for the most part fertile and highly cultivated, supporting a comparatively large agricultural population, distributed in numerous villages, in smaller hamlets, and largely also in scattered isolated dwelling-houses. The density of population is equal to about 111 persons to the square mile. A few coalmines are worked around Hanwood, but many parts of the small coal-fields are abandoned. Extensive quarries of Quartzite Stone, for road metal, are worked at Pontesbury.

POPULATION.

The population of the Rural District, as now constituted, at the Census of 1901 was 20,895, and at the Census of 1911 was 21,770. As, however, two large public institutions, viz.:—The Salop County Asylum and the Atcham Union Workhouse are situated within the District, and the deaths occurring in these institutions are apportioned among the districts to which the persons deceased belong, it is necessary for the purpose of arriving at Birth and Death rates, to make a deduction from the population proportionate to the population of other districts using these institutions. Adjusted in this way, the population of the Rural District upon which the figures in this Report are based is 20,900.

The population of the District, which decreased by 245 persons in the inter-censal period 1891 to 1901, increased by 875 during the ten years 1901 to 1911, a satisfactory feature to record in connection with a purely rural population. The chief increases appear to have been in Meole Brace and Pontesbury parishes, where some 92 new houses were built during the ten years.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Atcham R.D.	Rural England	Atcham R.D.	Rural England	Atcham R.D.	Rural England
1906	24.1	26.3	13.1	15.0	67	115
1907	22.4	25.6	14.7	14.7	88	106
1908	23.2	26.2	14.5	14.7	88	110
1909	23.9	25.6	12.9	14.5	70	98
1910	23.7	25.0	13.1	13.6	75	96
1911	22.3	23.4	13.5	13.9	88	118

The Birth-rate shows a general though slight tendency to reduction, equally in the District as in the country generally.

The nett Death-rate in the District compares favourably with that of Rural England for the past year as for the five preceding years. The rate for 1911 is based upon 283 deaths belonging to the District. Of these 41 were of infants under one year and 118, or nearly 42 per cent., were of persons aged 65 years and upwards. The chief causes of death were:—Phthisis 24, other tuberculous diseases 3, cancer 21, bronchitis and pneumonia 35, common infectious diseases 17. Influenza caused 5 deaths, rheumatic fever 3, kidney diseases 12, and accidents or violence 10. There were two cases of suicide. Only one death was attributed to appendicitis.

The Infantile mortality figures are distinctly favourable when compared with those for Rural England. Forty-one infant deaths occurred, of which 15 were due to congenital debility and premature birth, 7 to diarrhœal disease, 3 to whooping cough, 8 to bronchitis and pneumonia, and 4 to convulsions. One death was ascribed to tuberculous disease.

INFECTIOUS DISEASES.

The deaths from the chief epidemic diseases numbered 17, viz.:—Measles 1, whooping cough 7, diphtheria 2, diarrhoea and enteritis (under 2 years) 7.

Scarlet Fever.—Fifty-three cases came to light as compared with 109 in 1910, and 136 in 1909. The cases were of mild type, and there was no death. There was no serious epidemic prevalence, the cases being much scattered. A small local outbreak occurred at the end of January, affecting a somewhat wide area, comprising Uffington, Battlefield, Albrighton, and Bomere Heath, the centres of spread appearing to be the two small village schools of Uffington and Albrighton. Sixteen cases came to light about the same time, two cases being discovered by personal investigation among the absentees from school. Uffington school was closed for a month by the District Council upon my advice. Ten scattered cases occurred in this area in March, May, and June.

Another small local outbreak occurred at Bicton, nine cases coming to light in five houses, at intervals from July to December. The known cases were very slight, and no doubt 'missed' or unrecognised cases formed the links connecting them. One such case was found on investigating absentees from school. The remaining cases were scattered about the District, with no traceable connection between them, and with no spread beyond the houses infected.

Diphtheria.—Twenty-seven cases occurred in 20 houses, with two deaths, against 29 cases in 1910, and 23 in 1909. The outbreaks were, as in the previous year, scattered and sporadic, with for the most part no traceable connection, and obscure in origin.

A small connected series of four cases occurred in Minsterley parish in July, and was carefully investigated. Two cases were notified from a farm house. Upon visiting I found that there

had been slight cases of sore throat in the families of some of the workers upon the farm. As a considerable milking business was done at this farm, I advised the occupier to have a medical investigation made among his workmen. This was done and swabs taken from five milkers and from one boy who had had slight sore throat. One of the milkers and the boy were returned as showing diphtheria bacilli, and were treated as cases. The origin of infection was obscure, but a previous slight case had been notified in the neighbourhood in March, and a fatal case occurred in August, in an infant in another part of the parish, indicating a probably somewhat wide area of infection. One further case occurred in a labourer on this farm in September. I visited the school in July but found no evidence that it was involved. A swab taken from a school child with sore throat coming from the infected farmstead proved negative.

Six cases occurred in three houses at Meole in August and September. The houses were in the same street, and some connection between the cases appeared probable. No further spread occurred.

Four cases were notified in three houses at Pontesbury in November. I investigated the cases and made a careful search at the school. Five swabs taken from school children proved negative, as also were the swabs sent from three of the children notified.

A case occurred at Bayston Hill in November, in a school child and was fatal. I visited the school and took swabs from three children who had had sore throat. All proved negative and no further case arose.

The remaining cases in the District were outbreaks of single cases, widely scattered and apparently unconnected.

Public caution handbills were circulated in Minsterley, and supplied to the schools at Pontesbury and Bayston Hill, to be sent out in all cases of sore throat.

Diphtheria antitoxin appears to be generally used in cases of any severity. In the two fatal cases antitoxin was promptly used, but the medical man was called in too late in each case. The serum was supplied in four cases at the Council's cost under the Antitoxin Order, 1910.

Enteric Fever.—No case came to light during the year.

Puerperal Fever.—Three cases were notified, in Westbury, Wollaston, and Preston Gobalds parishes respectively. One was fatal. The rooms and bedding were disinfected by the Sanitary Inspectors, and the cases notified to the County Medical Officer for supervision of the midwives attending.

Measles was much less prevalent than in 1910. One death was recorded. The following schools were closed on account of measles by the managers, with the approval of the School Medical Officer:—Wroxeter in February, Buildwas in April, Church Preen and Cound in November, and Acton Burnell in December.

Whooping Cough caused seven deaths, of infants under two years. The parishes affected were Wroxeter, Atcham, Wollaston, Westbury, Bicton, and Berwick. Wroxeter school was closed in February, Great Wollaston in July, and Berwick in December, by the managers with the approval of the School Medical Officer.

PHTHISIS.

The deaths from phthisis numbered 24, against 16 in 1910, and 24 in 1909, the average for the past ten years being 21. Sixteen cases were notified during the year, five being poor-law cases notified under the Tuberculosis Regulations, 1908, and 11 being hospital notifications under the Tuberculosis Regulations (Hospitals), 1911. The Registrars of Deaths now send special returns of all deaths from phthisis. Notified cases were as a rule visited by the Sanitary Inspectors, enquiry forms made out, handbills of advice given, and disinfection offered. In fatal cases disinfection was carried out by the Inspectors.

The powers and duties of the Council under the Public Health (Tuberculosis) Regulations, 1911, which made the notification of all cases of phthisis *compulsory*, are dealt with in the preliminary pages of this report.

HOSPITAL ISOLATION.

There is no Isolation Hospital for the use of the District. The Council has for some years past paid a retaining fee to secure the prompt despatch of a Tent Hospital to meet an emergency of small-pox. A Berthon Hospital Hut and a small tent were acquired in 1904, on the last occasion of a small-pox outbreak. I have referred to the question of Hospital accommodation in former reports, advising the provision of permanent provision for infectious diseases in the District.

Disinfection.—Routine disinfection of infected rooms, in notified cases is carried out by the Council's Officers by spraying with formalin or cyllin. Infected schoolrooms are also in some cases specially disinfected. The Council possess a "Thresh Emergency Steam Disinfector," bought by my advice in 1904. for thorough disinfection of bedding and non-washable articles. This apparatus is portable and has been of service in one outbreak of small-pox and in one of virulent diphtheria. It is not used in routine disinfection.

WATER SUPPLY.

Public systems of supply are maintained by the Council in the township of Meole Brace, in Pontesbury village, and in the village of Bayston Hill, in Condover parish.

Private systems of supply, laid on from springs or wells, exist in the villages of Acton Burnell, Albrighton, Buildwas, Condover, Cound, Cressage, Eaton Constantine, Frodesley, Grafton, Harley, Harnage, Pitchford, Leaton, Ruckley, Rushton, Shrawardine, Uppington and Upton Magna. The water in these cases is as a rule laid on to standpipes open to all the villagers, but in some cases is laid on to the houses. A new system of supply, the details of which are noted below, was laid on to Dorrington village during the year, by the owner of the property.

Elsewhere the supply is from pumps and wells, of which the Council maintains a considerable number as public supplies, from which water is carried, while the number of individual private pumps and wells for the supply of single houses or groups is very large, the District being one in which for the most part subsoil water of naturally good quality is readily obtainable, though the construction of private shallow wells has been in the past generally radically defective, and the waters when analysed found open, as a rule, to objection. Much good work has been done in recent years by the efforts of the Sanitary Surveyor and the Sanitary Inspector in calling for and assisting by advice and supervision in, the proper construction and protection of wells in the case of houses newly built, and in the re-construction on sound lines of old wells where found to be defective. Twenty old wells were reconstructed and improved during the year in this way.

Meole Brace.—I have described in the two preceding reports the measures taken by the Council for the radical improvement and safeguarding of this public supply. The Surveyor reports “that the systematic investigation of all house service pipes, “mains, and other works mentioned in last year’s report, was “completed early in the year, resulting in a much improved “supply owing to the large number of leakages remedied.”

Owing to the prolonged drought it was found desirable to conserve and utilise all the sources of supply, and the Surveyor, from June onwards, therefore brought into use again the low level reservoir at Welbatch by shutting off at night the high level supply from Moat Hall Colliery.

Further he reports :—“During September and October “additional springs were found at Welbatch flowing at the rate “of 2,250 gallons per day, and as analysis was satisfactory, “they were collected in the upper catchpit and taken to the storage “reservoir, when it was found that the supply exceeded the daily “consumption by an ample margin.”

It is satisfactory to note that the supply of the village was well maintained in face of the drought of last year. Some trouble was experienced in May owing to waste and misuse of the water on gardens, and it was found necessary to check this by the issue of Caution Bills.

Bayston Hill.—I have previously described the work done by the Council to provide a standpipe supply to this village, the water from a spring of good quality being collected in a reservoir on Lyth Hill and laid on by gravitation.

No extensions of mains were made during the year. Twenty-eight houses were connected to the mains during the year; 49 houses now being on this supply.

Owing to occasional failure of the supply of water from the well at the corner of Sharpstones Lane, it will be advisable to continue the mains to that part as early as possible.

Pontesbury.—The village has a public system of supply laid on from a reservoir supplied by the Whitwell Spring, at the foot of Pontesbury Hill. Pontesbury Hill lies above the level of supply and is a scattered area of from eighty to ninety cottages dependent mainly upon numerous small wells in or upon the rock. The Council maintains two public wells upon the hill. During the drought of last year many of the private wells entirely failed, and the Parish Council asked the assistance of the District Council. The Surveyor reports as follows:—"All the private wells, as well as the public wells, were examined, and investigations for a supply in Poles Coppice at the top of the hill were made. A boring was made to a considerable depth with no satisfactory results."

"An old well, known as the Dingle Well, situated in the lower quarry, was re-opened and cleansed and afterwards gauged and analysed, the results being satisfactory enough to warrant its being covered in and otherwise protected from possible contamination, and a pump has been placed on the road side having a side draught."

An improvement was also carried out by the Surveyor by the Council's direction, for the houses on the lower part of the Hill. Here the houses carry from the Whitwell Spout, an overflow of the spring. A covered concrete reservoir to hold 500 gallons, and having a self-closing tap, was placed to provide storage.

At Pontesford, a detached hamlet adjoining Pontesbury, the houses carry from a running spout on the roadside, fed by a spring. The pipes conveying the water were found defective, and the whole length was relaid with $1\frac{1}{2}$ inch steel tubes, a length of 175 yards, and a proper collecting tank has been constructed to prevent surface contamination.

As regards public wells the Surveyor gives details of work done at *Berrington* and *Plealey*. In the former case the well is some 90 feet deep. The water was found to be turbid after heavy rain. Examination showed access of surface water through defective brickwork. An impervious lining of the upper part has been provided, and the defect remedied. At *Plealey* the lower well has been much improved by concreting around the sides and top and altering the overflow of the spring in the well.

As regards parts of the District on which I have previously reported, as needing improved water supplies, the Council has had under consideration and investigation the questions of *Ryton* and *Cross Houses*.

Ryton.—I suggested in the last report that the supply might be effected by a joint scheme for this village and the neighbouring larger one of *Dorrington*. During the year, however, *Dorrington* has been provided with a good supply laid on from a private source. An outside source for *Ryton* alone does not appear to be feasible, and at present the Council has under consideration the sinking of two good public wells. Advice has been obtained as to the best sites for sinking.

Cross Houses.—This village lies in Berrington parish. Its supply has been closely considered by the Council, and the Surveyor prepared alternative schemes (1) to sink a well alongside Berrington Pool and convey the water by gravitation to Cross Houses, (2) to take water from the well at the Workhouse by agreement with the Guardians. The Council instructed the Surveyor to proceed on the lines of the first scheme. The consent of the principal property owner in Berrington having been sought to make trial sinkings, it was found desirable to include Berrington village also in the scheme to meet his wishes. The Surveyor reports as to the work he carried out :—

“Eight trial holes were made around the pool with very little success, as none of the pool water was touched, although some of the holes were considerably lower than the surface level of the water.

“The Water Committee then met to consider what further steps it would be advisable to take, when it was agreed to call in an expert to advise as to the sites to be selected for further borings.”

This advice has now been obtained, and borings to a depth of 150 to 200 feet are recommended.

The water supply to nine houses at Brompton in Berrington parish I found to be unsatisfactory on analysis. These houses should be included in any system of supply.

As regards private systems of supply, a new scheme has been carried out for the supply of *Dorrington* by the principal property owner, and the new supply to *Upton Magna*, referred to in the last report, has been completed by the property owner.

Dorrington.—The work done by the owner is given by the Sanitary Inspector (No. 2 District) as follows :—

“The water is from a spring (the yield of which is well maintained), collected into a reservoir constructed of blue-brick in cement, having a capacity of 12,000 gallons. Two samples of the water have been analysed and found to be pure.

“From the reservoir the water is conveyed to the village under pressure by 3 inch cast-iron pipes, a distance of about 1,800 yards ; and approximately 233 yards of 1-inch cast-iron service pipes have been taken from the main to the various fountains fixed in different parts of the village. The fountains number 7, are anti-freezing, and of galvanised iron. They supply all the houses in the village, including the school. Five fire-hydrants have also been provided, and a case of fire-fittings, with hose, will be placed in the blacksmith’s shop, the centre of the village. Provision has been made in some cases for the water to be laid on to the houses.”

Upton Magn..—The new supply is from a well some 80 feet deep, sunk into the Bunter Marl. Water is raised by a wind engine to storage reservoirs, the storage having been increased by two new reservoirs, from 2,000 to 12,000 gallons. Some 18 houses in the village, with the rectory and the school, are supplied from the reservoirs, the water being laid on to taps. The well is in grass land, a quarter of a mile or more distant from the village, and above it.

Cound Moor.—I have for some years referred to the need for improved supply to this scattered area. I am glad to report the question as fairly settled now. The Sanitary Inspector describes the work as follows :—

“Work has now been carried out by the property owner, whereby the water has been brought to a more central spot for the scattered houses here. A considerable distance (200 or 300 yards) will be saved in carrying.

“The source of supply is the Berry Bank well. The water first gravitates through a line of new pipes to an underground cemented tank. From this tank it is pumped by hand, the pump being fixed near the wall letter-box.”

Acton Burnell.—The supply of this villiage is not satisfactory at present, and stands in much need of improvement. The supply was laid on some ten or twelve years ago by the property owner, from a very large and constant spring rising

near the Hobsley Coppice, on higher ground a mile or more away from the village. I received complaint early last year as to the muddy condition of the water after rain. I analysed a sample and found it to be naturally a good water, but in its muddy state unfit for drinking. The owner's attention was called to it, and I was informed that the conditions of collection and storage would receive attention. Nothing was done during the year to bring about any improvement. I have made enquiries from time to time, and it is clear that the condition has, during the past winter, become worse, the water being more frequently muddy. Precise information as to the site of the spring and the method of collection does not appear to be available, but the evidence seems to show that the water is conveyed for some distance under plough land from the springs to the reservoir, by open jointed field drains. It is therefore probable that in heavy rain the soil is washed into the pipes. I have recently reported the matter to the owner as urgently requiring attention, and have been informed by his agent that it is intended to lay watertight pipes through the plough land and to tap the supply if possible at six feet or more below the surface.

I am now informed that the ground has been opened up in order to trace the pipeline to the spring. I am glad that this necessary work has been begun.

Thirty-two certificates were granted during the year for the water supply to new houses. In the case of new well supplies it is the practice to require the water to be passed by analysis, and the structure of the well and the sanitary surroundings to be such as to provide adequate protection to the water.

Thirty houses were connected to the public water supplies.

SEWERAGE AND DRAINAGE.

Several of the larger villages are sewered, of which the chief are Meole, Pontesbury, Minsterley, Dorrington, Asterley, and Bayston Hill. In other villages there are a few lengths of sewer,

maintained by the Council. Elsewhere the drainage is by individual drains, or combined drains in short lengths, discharging on gardens or fields, or in ditches, or not infrequently in the nearest watercourse.

Of the above systems of sewerage, only that of Meole has outfall works. In the other cases the outfall is as a rule on to the land, with more or less facility provided for irrigation.

Fourteen houses were connected to the public sewers during the year.

Pontesbury Sewerage Scheme.—Plans prepared by the Surveyor were approved after official enquiry in 1910. Tenders for carrying out the scheme will shortly be considered by the Council. The work will be an important advance in the sanitation of the area, and will obviate the existing stream pollution.

Bayston Hill.—The Surveyor reports that in consequence of building operations it was found necessary to extend the sewer along Lyth Hill Road, a distance of about 80 yards, and some houses previously drained into cesspits have been connected to it.

Shelton, Bicton.—Complaints were received of nuisance from overflow of drainage, from several residences, on to Shelton Lane, and of pollution of the river by sewage. Inspections were made by the Surveyor and myself, and after a thorough investigation had been made by the Surveyor of all the drainage conditions, representations were made to the owners of the property, consisting of 17 houses, and under the Surveyor's advice and supervision the work was satisfactorily carried out by the owners in three separate schemes of disposal.

EXCREMENT DISPOSAL.

With the exception of the village of Meole Brace, where water-closets are in general use, and of numerous residences throughout the district having water-closets with disposal of

sewage in their own grounds, the general system of excrement disposal in vogue is by earth-closets and privies, the latter being more common, and having as a rule, underground vaults. The conversion of privies into pail-closets is being steadily advanced. In 1910, 99 privies were converted to pail closets by notice or representations of the Sanitary Officers. Last year 62 such conversions were made.

No comparative figures as to the number of closets of each type are available for any large part of the District, but a few figures ascertained by the Inspectors show the general proportions. In No. 1 District the Surveyor returns 304 w.c.'s in Meole and Pontesbury, some 290 of which are in Meole, which is completely sewered. Pail closets in Meole number some 28, and privies only 6. In more scattered parts of his District the Surveyor found 81 earth closets and 220 privies. Much the same proportion was found in parts of No. 2 District. The Inspector gives 97 pail closets and 190 privies, noted during the year.

There is no system of public scavenging of house refuse in the District. In the semi-urban village of Meole the householders either remove the refuse themselves or contract with a private person who is willing to undertake the work. Although dangerous accumulations of house refuse are not commonly found, and the houses are not in any way crowded on area, the removal and disposal of house refuse is often a domestic difficulty, and I think that a public system of scavenging would have sanitary advantages, and that the village is compact enough to render a scheme of regular removal both feasible and cheap. Elsewhere the houses in the District have practically everywhere ample garden space for disposal of refuse and excreta.

HOUSING.

Speaking generally, house accommodation is adequate in amount, and taking the District as a whole is in fair condition. As in most rural districts, there is a large number of very old

houses becoming worn out and needing frequent inspection and attention to keep them above the border line of unfitness. There is no excess of house accommodation. The increase of population during the past ten years appears to have been satisfactorily provided for, the main increases having occurred in parts of Meole and Pontesbury parishes, where nearly one hundred houses have been built during the ten years. At the same time housing difficulties may be expected if in this large agricultural district many cottages fall out of occupation through decay. The closing of six houses during the year in Cressage village for instance, though unavoidable, produced a shortage there and caused some to leave the district. In some other parts of the District it is felt that the building of cottages would be an advantage to labourers having to walk long distances to work, and the Council has the question under consideration at the present time.

Housing and Town Planning, etc., Act, 1909.—The following table gives an analysis of the work done during the year under the Act, in accordance with the Regulations under Sec. 17, Article V. :—

	<i>District</i>	
	<i>No. 1.</i>	<i>No. 2.</i>
Number of houses inspected	132	118
Number of these houses thought to be unfit for human habitation	11	15
Number of representations to Sanitary Authority of unfitness	11	15
Number of closing orders made	11	7
Number of houses in which defects were remedied without closing orders.. .. .	9	10
Number of houses put into a fit state after closure	2	—
Number of houses still under consideration ..	39	30

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION.

Defects of—

(1) Water supply	7	11
(2) Closet accommodation	19	29
(3) Drainage	11	25

(4) Dwelling house in regard to—							
(a) Light	..	..	..	..	..	22	24
(b) Free circulation of air	..	..	..	..	..	19	—
(c) Dampness	..	..	..	..	..	22	23
(d) Cleanliness	..	..	..	..	..	13	18
(5) Paving, draining and sanitary condition of							
yard or outhouse	..	..	..	..	..	8	11
(6) Arrangements for deposit and disposal of							
house refuse..	..	..	..	..	..	—	—
(7) Rooms unfit for habitation under Sec. 17 (7)							
(8) Other defects	..	..	..	..	..	18	140

These figures are furnished by the Sanitary Surveyor and the Sanitary Inspector. In No. 1 District two houses not included above were closed voluntarily by the owner upon representation made by the Sanitary Surveyor. In No. 2 District two houses were similarly closed upon representation by the Inspector, and two others closed and demolished, voluntarily, two new houses being erected in their place.

Included in the table of houses closed by order of the Council are ten houses on Pontesbury Hill, six in Cressage village, and one at Eaton Constantine, formally represented by me as unfit for habitation. In all 24 houses were closed during the year. Two of these were put in a fit state and re-opened, two were demolished and replaced by new houses, 10 remain closed and are derelict, and 10 are in process of thorough repair. A large number of houses were inspected preparatory to the adoption of the case paper system which was not brought into use until July.

Some very good work has been done in this inspection by the Inspectors in supervising the effective repair of old houses. I give an extract from my notes made on a second inspection of a row of five houses on Pontesbury Hill, as an instance of the radical improvement possible in neglected old property. Notices were served under Section 15 as to four of the houses, and a

closing order made in the case of the fifth. The Surveyor advised and assisted the owner as to carrying out the requirements, and supervised the work. I noted the following work done :—

Through ventilation provided by a new window on each floor ;

Floor of back kitchen laid in concrete ;

Repair to inside plaster work, and outside walls pointed ;

Rain water gutters to back and front of house ;

The yard approach concreted up to the houses and drained ;

New pail closet to each house, replacing two privies ;

New roofs to two back kitchens, and earth removed from an imbedded wall.

The light and ventilation in these houses is now good, and the property greatly improved sanitarily and in appearance.

The records of inspection under the Act are considered by a Committee of the Council. The system of records adopted is a 'case paper' system, with special cabinet for keeping the records filed and indexed. It is intended that in course of time the complete sanitary history of every house will be filed in case papers.

PERMISSIVE POWERS.

Sections 29, 30, and 31, of the Public Health Acts (Amendment) Act, 1890, applying to slaughter-houses, have been adopted. The Infectious Diseases (Prevention) Act, 1890, is not adopted in the District.

BY-LAWS.

By-laws, applying to the whole Rural District, have been made as to—

Private scavenging,

Slaughter-houses.

By-laws, applying to 11 contributory places (parishes) have been made as to—

Nuisances.

New Streets and Buildings.

The series of By-laws was revised in 1906; the Council has now drafted a new code of Building By-laws to apply to the whole District, on the lines of the Model Intermediate Code. The Council has also applied for powers to extend the Nuisance By-laws to the whole District.

Slaughter-houses.—There are now 25 slaughter-houses registered in the District, eight having been added during the past two years in consequence of the extension of the By-laws in 1909 to cover the whole District. Periodical inspection is made. Visits are not specially made at times of slaughtering as the slaughtering is for the greater part done at irregular intervals. No tuberculous carcases were found on inspections.

BAKEHOUSES.

There are 26 bakehouses registered in the District. They are inspected periodically. Two were added to the register during the year.

DAIRIES, COWSHEDS, AND MILKSHOPS.

The Model Regulations have been adopted and apply to the whole District. There are 218 cowkeepers and milksellers on the register, 17 having been added during the year. The Inspectors continue to give much attention to the condition of cowsheds, and to looking up cowkeepers requiring to be registered.

The greatly increased supervision of the milk trade in the District during the past three or four years is a most satisfactory feature of the Council's work. Since the end of 1906 the number on the register has been increased from 84 to 218, and in connection with this much good work has been done in obtaining better structural conditions in the cowsheds; lighting, ventilation, flooring, and drainage being brought up to a better standard.

Action taken with respect to Tuberculous Milk.—Information was received in November and December from the Medical Officer of Health of the Borough of Shrewsbury that milk supplied from two farms in the Rural District had been found to be tuberculous.

The Council authorised a veterinary inspection to be made in each case. In the first case eight cows were examined and one was certified to have tuberculous disease of the udder. In the second case some 16 cows were examined and two were certified tuberculous. Notice was served by the Council on the cowkeepers under the Dairies, Cowsheds and Milkshops Orders, to prohibit the sale or use of the milk from the affected cows, and was complied with in each case.

In the second case of the above the cows were removed from the milking herd, but were kept on the farm. In the first of the cases the history of the affected cow is of interest, and instructive as showing the absence of power under existing legislation to deal effectively with a cow whose existence is a public danger. I found that this cow was 'dry' and in calf at the time she was certified tuberculous. She was moved from the cowshed, and after a fortnight was sold in open market in Shrewsbury. I had asked the Inspectors to follow up as carefully as possible the movements of the cow. She was sold out of No. 1 District to a farmer in No. 2 District. Mr. Digwood traced the sale and warned the new owner that the milk must not be used. A week or two later the cow was sold again, in Dorrington market. It was bought by a farmer, again in No. 2 District. He was warned, and the cow was soon after sold in Wellington market. Again the sale was traced and the cow found to have been sold to a dealer in Staffordshire. The Sanitary Officials in the District in which the purchaser lived were informed by Mr. Digwood, and promptly started investigations, but some three days had elapsed since the sale and the cow was not found, nor could it be traced, the purchaser being a dealer who bought and sold cattle at many markets, and seldom kept them more than a day or two. I foresaw at the outset that it was almost certain that the cow would sooner or later leave the District and be lost sight of, in the absence of any power to prohibit its sale or movements, but this history may serve as a useful object lesson. It is to be hoped that the coming Milk Bill will provide for these cases.

SANITARY INSPECTION.

Mr. H. Asher was appointed Sanitary Surveyor and Inspector in July, 1906. He is a Member of the Institute of Sanitary Engineers, and holds the Certificate of the Sanitary Institute. As Sanitary Inspector he has charge of No. 1 District, with an area of 50,618 acres and a census population of 11,265*. As Surveyor he has charge of the public sewers and water supplies of the whole District. Mr. Percy Digwood was appointed as Sanitary Inspector in July, 1908. He holds the Certificate of the Sanitary Institute. He has charge of No. 2 District, with an area of 71,278 acres and a census population of 9,630.* I am indebted to both these officers for much information as to details of works of water supply, etc., given in this Report.

*Census 1911.

Mr. Asher notes in his report that "New Road, Meole Brace, "which for many years was in an insanitary state has been "made up under the Public Health Act, 1875, at the expense "of the owners, and has since been declared a public highway."

Offensive Trades.—Mr. Asher states that a nuisance from gut scraping and offal boiling came to his notice, and as this could not be satisfactorily dealt with under the Statutes in force in the District, it was decided to apply for powers to adopt Sec. 112 Public Health Act, relating to offensive trades.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE SANITARY INSPECTORS, OF SANITARY WORK FOR THE YEAR ENDING 31ST DECEMBER, 1911, IN THE ATCHAM RURAL SANITARY DISTRICT :—

	<i>District</i>		
	1	2	Total.
Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey	231	193	424
Number of legal notices sent	—	2	2
Number of informal notices sent	64	79	143
Number of such notices complied with	64	70	134
Number of letters written	190	146	336

PARTICULARS OF SANITARY MATTERS REFERRED
TO IN THE ABOVE NOTICES :—

(a) Houses to be disinfected after Infectious Disease	—	—	—
(b) Deficient or objectionable water supply	16	21	37
(c) New drains to be constructed or old drains to be amended	39	39	78
(d) New closets to be provided or old ones to be amended in construction	5	49	54
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition	15	26	41
(f) Offensive accumulations of all kinds ..	11	23	34
(g) Animals so kept as to be a nuisance	4	8	12
(h) Houses overcrowded	5	4	9
Houses disinfected after infectious disease (other than phthisis)	22	20	42
Houses disinfected in cases of phthisis ..	10	4	14
Privies converted to water-closets	5	—	5
Privies converted to earth closets	27	38	65
Plans for new houses passed (24 houses) ..	—	—	17
Certificates issued for water supply to new houses	—	—	32
Houses connected to public water supply ..	—	—	30
Repairs to public pumps and wells	—	—	7
New public wells	—	—	—
Private wells reconstructed or improved ..	13	7	20
Houses connected to public sewerage ..	—	—	14
Lengths of new sewer laid	97 yards.		
Lengths of new water mains laid	175 yards.		
Proceedings before Magistrates—None.			

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS FOR THE
YEAR.

	<i>District</i>		
	1	2	Total.
Number of cowkeepers and milksellers on register	154	64	218

Number of premises—cowsheds	..	..	154	64	218
dairies ..	..	..	2	8	10
milkshops	..	..	—	—	—
Number of inspections ..	..	..	203	152	355
Defects found (1) in cowsheds—					
(a) floor or cubic space	..	..	—	—	—
(b) ventilation ..	..	..	14	4	18
(c) lighting ..	..	..	31	5	36
(d) structure of floor	..	..	21	4	25
(e) drainage ..	..	..	9	4	13
(f) cleanliness ..	..	..	22	29	51
(2) in surroundings of cowshed	..	..	9	4	13
(3) in sanitary condition of drains	..	..	4	10	14
(4) in sanitary condition of milkshops	..	..	—	—	—
(5) in water supply ..	..	..	—	1	1
Number of notices—verbal and written	..	..	37	40	77
Number of these notices complied with	..	..	30	33	63
Number of defects found and not yet remedied..			7	8	15

CHURCH STRETTON RURAL DISTRICT.

	1901	1911
Area in Acres (exclusive of water)	45018	45018
Population (Census)	4479	4797
Inhabited houses (Census)	1005	—
Persons per house	4.4	—
Rateable Value, April 1st	—	£54353
A penny rate produces	—	£174
No. of Parishes	15	15
Death-rate per 1000	14.1	14.4
Birth-rate per 1000	21.3	20.6

PHYSICAL FEATURES AND GENERAL CHARACTER.

The District is one of hills and dales, highest across the centre from west to east, forming the watershed between the Severn and Teme river systems, and sloping gently to north and south. The natural drainage is by various small streams rising in the uplands, and affording good natural drainage towards the Severn on the north, or the Teme on the south side of the watershed. Three parallel ranges of hills run through the District from south-west to north-east, the "Longmynd" range, of Archæan age, along the western side; the steep escarpment of "Wenlock Edge," of Silurian age, along the eastern border; while between lies a tract of Ordovician age, through which the Caradoc and Hope Bowdler range of hills rise. The elevation varies from 1700 feet at the summit of the Longmynd moorland, to some 400 feet at the northern and southern limits of the District. The hillsides are largely cultivated, but in the higher parts are uninhabited moorland. Between the ranges are fertile valleys with several villages and many isolated farms and cottages.

The District is entirely rural and agricultural. In the centre lies the small Urban District of Church Stretton. There is an unimportant exposure of coal measures at the north end of the District. These measures are not now worked.

POPULATION.

The Census population of the District was 4,479 in 1901, and in 1911 was 4,797, an increase of 318 persons in the past ten years. In the preceding ten years the population declined by 152 persons. The population is sparse and scattered, being equal to 68 persons to the square mile. There is no village of large size.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 large towns. The Birth and Death rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Church Stretton R.D.	Rural England	Church Stretton R.D.	Rural England	Church Stretton R.D.	Rural England
1906	23.9	26.3	15.7	15.0	108	115
1907	24.4	25.6	13.7	14.7	61	106
1908	19.7	26.2	14.0	14.7	118	110
1909	22.1	25.6	11.4	14.5	38	98
1910	21.6	25.0	13.6	13.6	165	96
1911	20.6	23.4	14.4	13.9	71	118

The birth-rate in recent years has fallen slightly and is now, on the revised population, shown to be below that of Rural England.

The death-rates for the past six years have shown no marked variations, and on the average have been slightly below those of Rural England. The nett deaths in 1911 numbered 69, of which 1 was due to whooping cough, 1 to influenza, 5 to phthisis,

and 1 to other tuberculous disease, 7 to cancer, 14 to bronchitis or pneumonia, 1 to diarrhoea. Of the 69 deaths, 43, or 62 per cent., were of persons aged 65 years and upwards, an indication of the large proportion of aged persons in the District. Most of these deaths were of persons between 70 and 80 years, 9 were of persons aged 80 to 90, and 3 were over 90.

The infantile mortality rate is favourable, and is based on 7 deaths, of which two were due to premature birth. No infant death from diarrhoea, tuberculosis, or the ordinary infectious diseases was registered. It is certainly noteworthy that during the past six years no infant death has been attributed to tuberculosis, and only one to diarrhoeal disease.

INFECTIOUS DISEASES.

The deaths from the chief epidemic diseases were 2, viz. :—whooping cough 1, enteritis 1. As regards notified cases the incidence was light, 17 cases against 57 in 1910.

Scarlet Fever.—Ten cases were notified in six houses. The cases were scattered, the houses infected being one at Hungerford in February, one at Millichope in April, (the children in both these cases attending Munslow School, outside the District), one at Easthope in July, one at Shipton in October, and one at Brockton in December. In two of these cases the children attended Brockton School, which is outside the District. In the Shipton house three children were infected. These were 'missed' cases of slight nature, and not discovered till a medical man was called in and found them peeling. Two of the affected children had then returned to school. I notified the Medical Officer of Health of Bridgnorth Rural District of the cases as affecting the school. The remaining case was at Sibdon in October, and appeared to be an imported case.

No case of diphtheria was reported during the year. This was satisfactory as the District had been somewhat widely affected by local outbreaks in 1910, when 24 cases occurred in 16 houses, with two deaths.

One notification of enteric fever was received. The case was an obscure one and was treated in the Forester Hospital, Much Wenlock.

Five cases of erysipelas were notified, one being fatal.

In all the above outbreaks the cases were visited and investigated, and disinfection carried out by the Inspector, after the illness.

No outbreaks of measles or whooping cough came under notice, and no schools were closed on account of infectious disease.

PHTHISIS.

The deaths from phthisis numbered 5, against 7 in 1910, and 3 in 1909, the average number for the past ten years being 3.9. The Council adopted *voluntary* notification in 1908, but only two cases have been notified, one in 1910, and one last year. No notification of a poor-law, or hospital, case has been received under the Tuberculosis Regulations, 1908 and 1911. Special returns were received from the Registrar of the five deaths which occurred. The Sanitary Inspector visited the notified case, supplying handbills of advice, and disinfectants. He also disinfected two of the premises after death in the fatal cases notified by the Registrar.

HOSPITAL ISOLATION AND DISINFECTION.

There is no isolation hospital for the use of the District, and no action has been taken to provide for steam disinfection, the desirability of which I have pointed out in former reports. The Sanitary Inspector disinfects infected premises, with spray apparatus.

Diphtheria Antitoxin Order, 1910.—The Council has arranged for a supply of Serum to be stocked by Mr. Dunn, Chemist, Church Stretton, for supply to medical men in poor cases.

WATER SUPPLY.

There is no public system of water supply in the District, but a number of small private combined supplies exist, having been laid on from upland springs by property owners to villages or collections of houses. Such are the supplies to Leebotwood, Plaish, Shipton, part of Wistanstow, and Woolstaston villages, and Woolstone hamlet in Wistanstow parish. The village of Little Stretton is supplied by the Church Stretton Water Company, and All Stretton by the mains and reservoirs of a small local Company.

I referred fully in the Annual Report for 1908 to the water supplies of the District. No schemes of public water supply have been under consideration during the year.

I have often referred to Bushmoor and Leemore Common, a scattered area of small houses in Wistanstow parish, as having been badly supplied with water. A good deal of improvement has been made in the past two years by the representations of the Inspector and continued pressure upon the property owners. Two new wells have been provided at Bushmoor and existing wells improved. A new well, supplying 10 houses at Leemore Common was made during last year. Four cottages at Calico Bank, in the area, depend upon the 'Spout,' a land drain discharging on the roadside, and an unsatisfactory supply both as to amount and as to quality. Pressure should be put upon the owners to provide a better supply, and to sink a well.

There are few public wells maintained by the Council. Cardington has two, of very pure water. In 1910 the Parish Council, out of a small sum collected locally, placed a pump in connection with each, and protected one from risk of surface contamination. By my recommendation one of the pumps was placed 65 yards from the well and nearer to the houses thus saving a good deal of hand carriage. During last year the County Medical Officer and I made a joint visit to Cardington School to advise as to a proposal of the managers to sink a well in the school grounds for the school, which has no supply of

water. We considered the site unsatisfactory and that the subsoil was unlikely to provide a safe supply. We advised that rain water be collected for washing purposes, and that for a drinking supply the managers should arrange with the District Council to lay a drawpipe, jointly, from St. James's well to the school, a pump for school use being placed in the school grounds, and a public pump outside the grounds. I understand that nothing has been done so far in this matter, and I would recommend the Council to proceed with it. A public pump in this spot would be an advantage to a number of houses.

Many farms in the District have good supplies piped from springs on the hillsides, but cottagers have often to go a considerable distance to fetch water, and in some cases use water from streams which do not afford a safe supply. Eleven private wells were re-constructed or improved under the Inspector's notices or representations.

No certificates of water supply for new houses were issued during the year.

SEWERAGE AND DRAINAGE.

There are short lengths of public sewer, laid and maintained by the Council, in Picklescott and Wall villages. In other villages, as Wistanstow, All Stretton, Little Stretton, and Cardington, the slop-water drains are commonly connected with old road-water drains, discharging on the land or into running streams. The Sanitary Inspector, who is also Surveyor, now attends to the periodical cleansing of the outfalls, and this has resulted in considerable improvement as regards objectionable accumulations.

All Stretton.—I have reported previously on the drainage of this village. The exceptional feature here is the discharge of the main drain of a considerable private asylum, having a number of water-closets, directly into the brook, causing serious pollution. The Council has endeavoured to obtain the removal of this pollution by voluntary action by the owner, but without

result. During the year the County Council put pressure upon the District Council to undertake the improvement of the sewerage of the village and especially to deal with this pollution of the stream. After an interview by a deputation of the District Council with the County Public Health Committee, the District Council resolved to call in engineering advice to report and to prepare a scheme for sewerage and sewage disposal of the village. A firm of engineers has been engaged, but the survey has been delayed owing to the heavy rainfall and floods of the winter.

The sewage works of the Church Stretton Urban District Council are situated in the Rural District below Little Stretton. The effluent from the filter beds and land, and storm water tanks, discharges into the brook. In the last annual report I referred to these works in connection with complaints received as to the state of a mill pool below the works. The nuisance did not appear to me to arise directly from the sewage effluent, but from decay of a profuse vegetable growth in the pool. No complaint was received as to the brook or the pool during the year.

EXCREMENT DISPOSAL.

There are comparatively few water-closets in the District, and the majority of cottages have privies of old type and construction. Of the 325 houses inspected by the Sanitary Inspector during the year, 36 were found to have w.c.'s, 55 earth or pail closets, 231 had old fashioned privies, and 3 had no closet accommodation. In recent years 11 privies have been converted into w.c.'s and 100 into pail closets, by the Inspector's figures.

HOUSING.

The average number of persons per house is about 4.5. Speaking generally, the cottages of the District are of considerable age and often undesirably small for family occupation. There are on one or two estates good modern cottages, but the building of new cottages is altogether exceptional. There are many houses in a practically wornout condition, and needing periodical attention to keep them near to a habitable standard. Owing to defective construction the light and ventilation in old cottages is often found to be unsatisfactory, especially as regards the bedrooms.

The surroundings of houses in the District are everywhere open, and the occupants have ample garden space. The surroundings are generally cleanly.

Housing (Inspection of District) Regulations.—The following table gives an analysis of work done during the year. With the Inspector I prepared a list of houses and of certain small areas to be inspected, and the officer inspected and reported to the Council on these and on a large number of other houses, taking one or two of the larger parishes in his routine inspection. In all 325 houses were inspected and the details entered up in the record book, and brought before the Council. The Inspector's records did not show a large number of structural defects. Two houses were found to be in such a dilapidated and dangerous state that upon his report the Council decided to close them as beyond repair. Owing to informalities in making the closing orders in the first place, and subsequent difficulties in ascertaining the ownership, and otherwise, the closures had not been effected by the end of the year. One of these houses I certified as unfit for habitation a few years ago.

ANALYSIS OF WORK DONE IN THE YEAR UNDER THESE REGULATIONS.

Number of houses inspected	..	..	..	..	325
Number of these houses thought to be unfit for human habitation	..	..	..	..	2
Number of representations to Sanitary Authority of unfitness	..	..	..	..	2
Number of closing orders made	..	..	..	..	2
Number of houses in which defects were remedied without closing orders	..	..	..	..	38
Number of houses put into a fit state after closure	..				0
Number of houses still under consideration	..	..			59

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION.

Defects of—

(1) Water supply	29
(2) Closet accommodation	14
(3) Drainage	36
(4) Dwelling house in regard to—	
(a) Light	3
(b) Free circulation of air	10
(c) Dampness	18
(d) Cleanliness	3
(5) Paving, draining and sanitary condition of yard or outhouse	—
(6) Arrangements for deposit and disposal of house refuse	—
(7) Rooms unfit for habitation under Sec. 17 (7) ..	—
(8) Other defects	—

Overcrowding is not commonly found. Two cases were found in the inspection, at Cheney Longville, and were remedied under notice.

As regards the use that should be made of the Housing inspection, I would repeat the remarks I made last year that in a few cases it may, and probably will, be found necessary to close houses, as beyond repair, but generally speaking the Council should exercise all their powers to obtain improvement of defects shown by the inspection, and in this way very much good should result from this Act, in preventing the progressive decay and ultimate closure of cottages which are needed in a District in which new building is very rare.

PERMISSIVE POWERS.

The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, have not been adopted. By-laws for common lodging houses are in force.

COMMON LODGING HOUSES.

There are two, registered, in All Stretton. Both are old houses. They are inspected periodically.

DAIRIES, COWSHEDS, AND MILKSHOPS.

No regulations have been made under the Dairies, Cowsheds and Milkshops Order, 1885. I have recommended adoption of regulations, but the Council, after discussion, decided to defer action in view of expected legislation.

The Sanitary Inspector returns the number of cowkeepers on his books for the year as 19. The number varies from year to year. Some four or five purvey milk in the neighbouring Urban District, but the majority send milk away to the big towns. I made a special inspection of most of the cowsheds during the year with the Chairman of the Council and the Sanitary Inspector. Fourteen premises were visited. Only one was of modern construction and free from defects. Several premises were very old and in one case at least thorough reconstruction appeared to be necessary, and in nearly all very considerable alterations were required. The principal defects generally found were deficiency of light; rough and defective paving, channelling and draining; large accumulations of manure in dirty foldyards, often within a few feet of the sheds; and the rough and filthy condition of the approaches to the sheds through the foldyards. In several cases the ceilings or roofs were rough and defective.

As a rule the sheds were in a dirty state, and from structural defects appeared incapable of being kept in a state necessary for the cleanliness of the milk and protection against contamination. The walls were limewashed periodically, but not the roofs or ceilings. Open roofs were often festooned with cobwebs, and ceilings showed fodder hanging through gaps and holes.

I reported the facts to the Council and explained the scope of the Dairies, etc., Orders, and the powers and duties of the Council. It was decided not to adopt Regulations, having in view the probable passage of a 'Milk Bill,' the Council also considering that the powers given by the Orders and the Regulations for enforcing structural alterations were indirect and limited. The Sanitary Inspector was instructed to serve informal notices on the cowkeepers pointing out where the premises fell short of requirements, and to ask for improvements. This was done. In one case at Ticklerton a new cowshed was built, but otherwise, the Inspector informs me, nothing was done to remedy matters during the year.

SLAUGHTER-HOUSES.

There are three in the District. There is no register and no By-laws are in force. The Inspector visits occasionally to see that due cleanliness is observed. No tuberculous meat was found at his visits.

SANITARY INSPECTOR.

Mr. W. Edwards was appointed Sanitary Inspector in 1892, and is re-appointed annually ; he is also Surveyor to the District Council.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	352
Number of legal notices sent	7
Number of informal notices sent	73
Number of such notices complied with	17
Number of letters written	103

PARTICULARS OF SANITARY MATTERS REFERRED TO
IN THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	—
(b) Deficient or objectionable water supply ..	29
(c) New drains to be constructed or old drains to be amended	36
(d) New closets to be provided or old ones to be amended in construction	14
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	18
(f) Offensive accumulations of all kinds	—
(g) Animals so kept as to be a nuisance ..	—
(h) Houses overcrowded	2
Houses disinfected after infectious disease (other than phthisis)	10
Houses disinfected in cases of phthisis	2
Privies converted to water closets	—
Privies converted to earth closets	5
Plans for new houses passed	—
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	—
Repairs to public pumps and wells	3
New public wells	—
Private wells re-constructed or improved	11
Houses connected to public sewerage	—
Lengths of new sewers laid	—
Lengths of new water mains laid	—
Proceedings before Magistrates— <i>Nil</i> .	

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS
FOR THE YEAR

Number of cowkeepers and milksellers on register ..	19
Number of premises—cowsheds	22
dairies	19
milkshops	—
Number of inspections	73

Defects found (1) in cowsheds—

(a) floor or cubic space..	..	..	..	16
(b) ventilation ..	..	..	..	1
(c) lighting ..	..	..	..	16
(d) structure of floor ..	..	..	..	2
(e) drainage ..	..	..	..	12
(f) cleanliness ..	..	..	..	13
(2) in surroundings of cowshed ..	..	..	..	2
(3) in sanitary condition of drains	..	..	..	—
(4) in sanitary condition of milkshops	..	..	..	—
(5) in water supply ..	..	..	..	—
Number of notices—verbal and written	..	..	..	8
Number of these notices complied with	..	..	..	7
Number of defects found and not yet remedied	..	..	..	62

CLUN RURAL DISTRICT.

	1901	1911
Area in acres (exclusive of water)	81915	81915
Population (Census)	6824	6565
Inhabited houses (Census)	1487	—
Persons per house	4.6	—
Rateable value, April 1st	—	£67421
A penny rate produces	—	£280
No. of parishes	16	16
Death-rate per 1000	17.0	13.4
Birth-rate per 1000	22.9	24.1

PHYSICAL FEATURES AND GENERAL CHARACTER.

The Rural District is essentially a hill country, lying in the south-west of the county, and on the borders of Wales. Much of the District lies at an elevation of 1000 feet and upwards, especially in the northern and western parts. The centre and south-eastern parts consist of open valleys, at an elevation above Ordnance Datum of 400 to 600 feet, and broken and divided by small groups of hills. The main structure is that of an old elevated table-land much dissected, weathered down, and glaciated.

The geological formation is much broken, the upper and lower Silurian, and Ordovician measures being exposed in considerable areas, with less extensive exposures of the old Red Sandstone, and of Cambrian and Pre-Cambrian measures. The natural drainage is by various streams rising in the hill country to north and west, and forming the small rivers Onny and Clun, which leave the District through the valleys of the south and east to join the river Teme.

The District contains 16 parishes, and is sparsely populated, and agricultural in character, much of the hill country being cultivated or grazed. A small area in the north was in the past worked for lead, barytes, and other minerals, but these industries are now practically extinct. The District contains the small market town of Clun in the south, and has several villages of small size which are principally placed in the valleys, and some smaller hamlets, and many isolated farmsteads scattered about the valleys and hillsides. The Borough of Bishop's Castle is within, and near the centre of, the District.

POPULATION.

The Census population of the Clun Rural District was 6824 in 1901, and 6,565 in 1911, a decrease of 259 persons in the ten years. In the preceding ten years 1891—1901, there was a decrease of 636 persons, so that the fall in recent years has been considerably lessened. The cessation of the mining industries around Shelve has probably been the principal cause of the loss.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death Rates are calculated per 1,000 of population, and the Infant Mortality on the deaths of infants under one year per 1,000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Clun R.D.	Rural England	Clun R.D.	Rural England	Clun R.D.	Rural England
1906	23.6	26.3	15.1	15.0	114	115
1907	25.8	25.6	14.5	14.7	76	106
1908	21.2	26.2	14.3	14.7	78	110
1909	21.7	25.6	13.4	14.5	62	98
1910	18.6	25.0	14.7	13.6	89	96
1911	24.1	23.4	13.4	13.9	76	118

The birth-rate, which has been for three years an exceptionally low figure, was last year above the rate for Rural England.

The death-rate during the six years shown above has kept very close to that of Rural England, being on the whole slightly lower. The nett deaths in 1911 numbered 88, of which 5 were due to whooping cough, 1 to diphtheria, 3 to influenza, 4 to pulmonary tuberculosis, 7 to cancer, 12 to bronchitis or pneumonia, and 2 to diarrhoeal disease. Five deaths were due to violence or accidents, and one to suicide. Of the 88 deaths 40, or 45 per cent., were of persons aged 65 years and upwards.

The Infantile Mortality rate for the year is very favourable, being 76 per 1,000 births compared with 118 for England and Wales outside the large towns. During the past six years the rate in the District has averaged 83 deaths per 1,000 births. There were 12 deaths of infants under one year in 1911, of which 3 were due to whooping cough, 2 to diarrhoeal disease, 4 to congenital debility, 1 to convulsions, and 1 to bronchitis. In the past four years only one death has been ascribed to tuberculous disease.

INFECTIOUS DISEASES.

The deaths from the chief epidemic diseases were 8, viz. :— whooping cough 5, diphtheria 1, and diarrhoea 2.

Scarlet Fever.—Very few cases came to light during the year, the number being 5, against 14 in 1910, and 46 in 1909. The cases were scattered, occurring in four houses, one at Shelve in May, one at Clun in June, one near Clun in July, and one at Wentnor in December. Three of those affected were adults, and in two of these there was probability of infection having been imported into the District; in one case the outbreak having followed on the visit to the house of two children who had been discharged from hospital, after scarlet fever, six weeks before the visit commenced.

Diphtheria.—Fourteen cases came to light against 21 in 1910, and 4 in 1909. Ten houses were involved, and all but two of the cases occurred in connection with a small outbreak in October, which clearly centred round Lydbury North School. I received notification of three cases in two houses at Kempton on October 8th, and visited and investigated. The patients were school children. One case had proved fatal, there having been some days delay in recognition of the disease and antitoxin therefore not having been given until the sixth day, the patient dying on the seventh day of the disease. I visited the school and found that slight sorethroat had been somewhat prevalent for about three weeks. I examined several children in school and swabbed two who had returned to school after a short absence with sore throat. One of these was returned as 'positive.' I advised the exclusion of all children showing any sign of sore throat, and also that in all cases of absence from school the master should warn the parents of the presence of diphtheria. A fifth case being notified in a school child, I informed the School Medical Officer on October 12th of the outbreak, and suggested that a routine investigation and swabbing in school would be a very useful safeguard against further spread of infection. The School Medical Officer was not able to undertake this at the moment, and only one further case arose in any child attending school up to the end of the month. Four further cases developed during this time, three being in houses previously infected. The School Medical Officer visited the school on November 5th, and took swabs from 13 children. Two of these were returned as showing diphtheria bacilli, and were excluded from school and treated as cases. The symptoms, so far as there had been any, dated some four to five weeks before the swabs were taken, and they were evidently slight cases but cases of prolonged infection, or 'carriers' of the disease. Out of eight primary cases in this outbreak three were discovered by swabs taken in school, and the value of this means of investigation received further demonstration. No further case arose in this year up to the end of the year.

A case occurred in January at Broadward Bridge, in Clun-gunford parish, and a slight case arose at Aston-on-Clun in March, this being discovered in Hopesay School by the School Medical Inspector, by a swab taken at the routine inspection. There was no spread from either of these cases.

Diphtheria Antitoxin Order.—The Council has arranged for stocks of antitoxin to be held by two chemists in Bishop's Castle and Clun respectively for free supply to medical men for cases of the poorer class. A supply was made in seven of the cases notified during the year.

A case of *continued fever* was notified in August at Aston-on-Clun. The patient had died. The registered cause of death was given as "continued fever 12 days (not typhoid)." No investigation was made.

Two cases of *puerperal fever* were notified and investigated, and one case of erysipelas, which was fatal.

Whooping cough was very prevalent and caused five deaths. Epidemics of whooping cough appear to return at intervals of about five years in the District. There were 5 deaths in 1901, 4 in 1905, 2 in 1906, and 5 in 1911. In all the other years in this period there was only one death. Whooping cough is not a notifiable disease, and no measures are taken to prevent its spread, closure of schools occurring only when the attendance has fallen to a low point. It is difficult to suggest any practical measures to prevent epidemics of this disease, but the mortality from it might be lessened if greater care were taken to prevent exposure of children affected. Some effective supervision might be exercised by a County scheme of health visiting and school nursing.

The prevalence of the disease may be seen from the following list of schools closed by the managers under the authority of the School Medical Officer :—Newcastle in January, Shelve in February, Norbury in March, Clunbury and Clunton in June, Edgton and Chapel Lawn in July, and Lydbury North in December.

PHTHISIS.

The deaths from phthisis numbered 4, against 10 in 1910, and 6 in 1909; the average number for the past ten years being 6.2. The Council adopted *voluntary* notification in 1907. Three cases were notified during the year, two of which were visited by the Sanitary Inspector, and in one case he disinfected the premises. Handbills of advice were given, and disinfectants provided.

HOSPITAL ISOLATION.

There is no isolation hospital for the use of the District. In the Bishop's Castle division the Council had arranged for the use, if necessary, of an unoccupied cottage retained by the Borough of Bishop's Castle for isolation of small-pox, but the owner has now resumed possession of the cottage.

DISINFECTION.

The Sanitary Inspector is provided with an apparatus for spraying infected rooms, on recovery of the patient, in notified cases. The Council, in 1908, purchased a portable 'Emergency' Steam Disinfector, jointly with the Borough of Bishop's Castle. The cost was £35, and a shed has been erected for storing the Disinfector at the Clun Workhouse in Bishop's Castle.

WATER SUPPLY.

There is a public system of supply in Clun Town, and in the village of Newcastle in Clun parish. The water is from upland springs in both cases, stored in reservoirs and laid on by gravitation to the houses. The water is of excellent quality, and the supply constant. Both schemes were carried out by the District Council. At Chapel Lawn and Cefn Einion, outlying small hamlets in Clun parish, public pumps have in recent years been provided by the Council.

Clungunford.—This village has now a good supply, laid on by the Council to the majority of the houses. The water is taken by arrangement from the private supply main of the principal property owner, by meter. The source of the water is a reservoir

fed by an upland spring and the water is of very good quality. The Council's main supplies those houses which were not already supplied by the mains of the owner, and so completes the supply of the village. The water was laid on to seven houses last year, making 13 houses supplied by the Council.

Clunbury, Clunton, and Brockton.—I described in last year's report the three schemes prepared by the Council's Surveyor and adopted by the Council for the supply of these villages. A public enquiry into the plans was held by the Local Government Board in March of last year, and the schemes have now been sanctioned. The work will be proceeded with during the present year, tenders having been called for by the Council.

Clun Green.—An extension of the Clun water supply has now been made to Clun Green, a small collection of houses about half a mile to the east of the town. The main was extended some 700 yards, and water laid on to 7 houses. This is a great improvement, and one I advocated some years ago, as the hamlet had not a satisfactory supply.

Lyddham.—During the year the owner laid on a supply of water to this small village consisting of a farm house and a few cottages. I referred last year to a proposal to supply from a spring. The actual supply, however, the Inspector tells me, is taken from the Onny river, above More village, and is filtered through sand and charcoal and then pumped to a service reservoir. The safety of this supply will depend upon the constant efficiency of the filtration.

In some other villages and hamlets in the District combined supplies have been carried out in recent years by large land-owners. The chief of these are to the village of Lydbury North, and to the hamlets of Acton and Lydbury Down in the same parish, and all on one estate. The water is in each case laid on by gravitation from upland schemes, and on analysis is found exceptionally pure. There is also a piped supply for the School and a few houses in Linley parish, and small piped supplies for small groups of houses at Norbury, and at Little Brampton in Clunbury parish.

Elsewhere the supply is from springs and wells, in some cases water having to be carried considerable distances.

Kempton.—I inspected the water supply of this village of some 20 houses. The houses are scattered along both sides of the small river Kemp, and are all on one large estate. The supply is from some seven pumps in the gardens and yards of the houses. There had been no shortness of water during the summer drought, and no complaint as to the quality of the water was made. I was informed that the landowner had under consideration a scheme for a gravitation supply from springs above Brunslow, and such a scheme would certainly be a great improvement, affording greater convenience to the householders, and a much safer supply than one from old wells with unsafe surroundings.

Chapel Lawn.—The public pump provided some years ago over a new well sunk by the Council failed in the dry season of last year. This supply has never been really satisfactory, and I am glad to note that the Council instructed the Surveyor to report on the possibility of laying on a supply from springs above Pentre. If this can be done it will be a great advance. Some ten or twelve years ago the question of a public supply was gone into, but was found to be impracticable at that time. I hope that it may be possible now.

The public well at Hopton Heath was protected from contamination by surface water, and a new public well was provided at the Round Oak, Hopesay.

The advances made in the water supply of the District in the past few years have been very notable, and very creditable to the Council and to the large landowners. In utilising the upland springs which are so plentiful, and in many cases of quite exceptional purity, the best possible course has certainly been taken. With very small exceptions all the schemes are gravitation schemes of simple construction and cheap in maintenance, giving constant and pure supplies.

Two certificates of water supply for new houses were issued during the year.

SEWERAGE, DRAINAGE AND EXCREMENT DISPOSAL.

Clun town is sewered for the most part, but only a small number of the houses there have water closets. The principal sewers of the town discharge into the Clun river. In recent years the Council has erected a flushing tank and ventilating shaft at the head of the chief sewer, and re-laid or extended the outfall pipes into the river. The Council, during 1907, had the disposal of the sewage under consideration, and employed a firm of engineers to report on the subject. The County Council has called the attention of the District Council to the pollution of the river by sewage, and the District has the matter under consideration, a Sub-Committee having been appointed to report upon the question.

Elsewhere there are no recognised public sewers, and few combined drains. Some residences and a few farm houses have water closets with cesspool disposal in their own grounds but for the most part, outside privies, with underground vaults, are in common use, the slop water of cottages being discharged on the gardens or in a ditch or watercourse.

No new lengths of public sewer were laid during the year. No house was newly connected to the sewers.

Seven notices for re-construction or amendment of defective drains were served during the year.

Seven privies were converted into pail closets during the year under the Inspector's notices. No conversions to w.c.'s were made. As regards the number of closets of each type in the District, no extensive figures are available. The Inspector gives the following as regards a number of villages which he has inspected, and the proportions may be taken as representative of the District as a whole :—

<i>Village.</i>			<i>W.C.'s.</i>	<i>Pail Closets.</i>	<i>Privies.</i>	<i>Total.</i>
Brockton .. ..	..	..	1	—	23	24
Lydbury North ..	..	..	5	3	31	39
Lower Down .. ..	..	..	—	6	6	12
Clunton .. .. .	..	..	—	2	30	32
Clunbury .. .. .	..	..	3	3	16	22
Newcastle .. ..	..	..	2	3	20	25
Clungunford .. ..	..	..	5	3	19	27
Colebatch .. .. .	..	..	—	4	6	10
Chapel Lawn and Pentre			—	5	10	15
Edgton .. .. .	..	..	—	4	11	15
			16	33	172	221

The privies, which are practically all of old construction with vaults, predominate largely. In the absence of sewers no extensive conversion of privies into w.c.'s is practicable or desirable, but their conversion into earth or pail closets should be pressed wherever a privy comes under notice on account of its faulty condition or objectionable situation.

There are instances in Clun and Clungunford of privies discharging direct into running streams. I have often advised the abolition of these as unnecessary and dangerous pollutions.

There is no system of public scavenging in the District. A public tip is provided at Clun by the Council for householders to dispose of their house refuse.

HOUSING.

There are many cottages of good construction and well maintained in the District, especially on large estates, as in Lydbury North and Lydham parishes. Speaking generally, the housing conditions in the District are very fair, though there are many old houses requiring periodic inspection and attention to keep them in habitable condition. By the Census figures the popu-

lation appears to have fallen off in considerably greater proportion than the number of inhabited houses, and the amount of housing accommodation appears to be adequate to the present population. There is no crowding of houses on area, and overcrowding in houses is not commonly found. No cases came under notice during the year.

Housing (Inspection of District) Regulations.—Not much progress has been made so far in the inspection of the District under these regulations. I scheduled a few individual houses for early inspection and suggested to the Inspector that he should add to the list any defective old premises which should come to his notice in going round the District. The following table gives an analysis of the work done during the year, as regards houses inspected in detail and entered on the record book for consideration by the Council. Preliminary notices were served by the Inspector in every case for the remedying of defects, and resulted in 5 of the 10 houses inspected being put in effective repair.

ANALYSIS OF WORK DONE IN THE YEAR UNDER THESE REGULATIONS :—

Number of houses inspected	..	..	..	..	10
Number of these houses thought to be unfit for human habitation	..	..	..	..	1
Number of representations to Sanitary Authority of unfitness	..	..	..	..	1
Number of closing orders made	..	..	..	..	—
Number of houses in which defects were remedied without closing orders	..	..	..	..	5
Number of houses put into a fit state after closure	..	..	..	..	—
Number of houses still under consideration	..	..	..	..	5

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION :—

Defects of—

(1) Water supply	..	..	..	..	2
(2) Closet accommodation	..	..	..	..	2
(3) Drainage	..	..	..	..	—

(4) Dwelling house in regard to—	
(a) Light	1
(b) Free circulation of air	—
(c) Dampness	10
(d) Cleanliness	1
(5) Paving, draining and sanitary condition of yard or outhouse	2
(6) Arrangements for deposit and disposal of house refuse	—
(7) Rooms unfit for habitation under Sec. 17 (7)..	—
(8) Other defects	—

I have steadily advocated attention being given to conditions of injurious dampness, caused by houses being imbedded at one or more sides in the earth, a condition not uncommon in the scattered houses on the hillsides. In all 28 houses, damp or otherwise in a bad sanitary condition, were dealt with under the Inspector's notices during the year.

PERMISSIVE POWERS.

The Public Health Acts (Amendment) Act, 1890, and the Infectious Disease (Prevention) Act, 1890, have not been adopted, and the Council possesses no Urban powers under the Public Health Act, 1875. The Council has not made any By-laws.

SLAUGHTER-HOUSES.

There are three in the District. The Sanitary Inspector visits the places periodically but not specially at times of slaughtering. No tuberculous carcases have been found.

DAIRIES, COWSHEDS, AND MILKSHOPS.

There are six cowkeepers and milksellers on the register. No regulations under the Dairies, Cowsheds, and Milkshops Order have been adopted. The Sanitary Inspector pays periodic visits of inspection. The sale of milk as a business appears to be very small in the District, there being no centre of population outside Clun, and the absence of railway facilities is against the export of milk. No action has been taken as regards the veterinary inspection of milch cows.

BAKEHOUSES.

There are seven bakehouses in the District. They are periodically inspected and very fairly kept.

Mr. G. W. Hamar was appointed Sanitary Inspector for the whole District in June, 1906. Up to this time the District had been divided between two inspectors. Mr. Hamar is an Associate of the Royal Sanitary Institute; he is also Assistant Surveyor to the Council.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	177
Number of legal notices sent	—
Number of informal notices sent	47
Number of such notices complied with	43
Number of letters written	79

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	—
(b) Deficient or objectionable water supply ..	1
(c) New drains to be constructed or old drains to be amended	7
(d) New closets to be provided or old ones to be amended in construction	4
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	28
(f) Offensive accumulations of all kinds	5
(g) Animals so kept as to be a nuisance ..	2
(h) Houses overcrowded	—

Houses disinfected after infectious disease (other than phthisis)	22
Houses disinfected in cases of phthisis	1
Privies converted to water closets	—
Privies converted to earth closets	7
Plans for new houses passed	—
Certificates issued for water supply to new houses	2
Houses connected to public water supply	14
Repairs to public pumps and wells	1
New public wells	1
Private wells re-constructed or improved	3
Houses connected to public sewerage	—
Lengths of new sewers laid	—
Lengths of new water mains laid	700
	yards.

Proceedings before Magistrates—*Nil*.

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS,
FOR THE YEAR ENDING 31ST DECEMBER, 1911 :—

Number of cowkeepers and milksellers on register	6
Number of premises—cowsheds	6
dairies	6
milkshops	—
Number of inspections	14
Defects found (1) in cowsheds	
(a) floor or cubic space	—
(b) ventilation	1
(c) lighting	—
(d) structure of floor	2
(e) drainage	—
(f) cleanliness	2
(2) in surroundings of cowshed	—
(3) in sanitary condition of drains	—
(4) in sanitary condition of milkshops	—
(5) in water supply	—
Number of notices—verbal and written	5
Number of these notices complied with	5
Number of defects found and not yet remedied	—

NEWPORT RURAL DISTRICT.

				1901	1911
Area in acres (exclusive of water)	..	..	..	22617	22617
Population (Census)	..	..	..	6033	6005
Inhabited houses (Census)	..	..	..	1284	—
Persons per house	..	..	..	4.7	—
Rateable value, April 1st	..	..	..	—	£45801
A penny rate produces	..	..	..	—	£146
No. of parishes	..	..	..	9	9
Death-rate per 1000	..	..	..	13.7	11.5
Birth-rate per 1000	..	..	..	27.7	23.5

PHYSICAL FEATURES AND GENERAL CHARACTER.

The District is in part agricultural and part industrial, and lies within the eastern border of the County. The northern and large part is on the Shropshire plain, here formed of the Bunter beds of the New Red Sandstone, and is entirely agricultural. The elevation of this part varies from 150 to 300 feet above Ordnance Datum. The southern and much smaller part rises rather rapidly from the plain, reaching some 500 feet elevation at the extreme border on the south, and comprises the apex of the extensive triangular coal-field, which has its base some miles to the south. This part lies upon the coal measures, with a small intrusive outcrop of much broken older strata, forming Lilleshall Hill. The natural drainage is by various small streams from the south and east flowing towards the west, and falling into the Tern river outside the District.

There are nine parishes in the District, all agricultural, except the large parish of Lilleshall, which is in part agricultural, but also contains the industrial area of Donnington Wood, several collieries and some engineering and other ironworks, employing the majority of the workers in this area.

POPULATION.

The population of the Rural District was 6,033 at the Census of 1901, and 6,005 at the Census of 1911, a decrease of 28 persons only in the ten years. In the ten years 1891—1901 the population decreased by 294. The population is relatively denser in the industrial area, the parish of Lilleshall having a population of 3,111 at the 1901 Census, equal to 331 persons per square mile, as against 112 per square mile in the remainder of the District.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death Rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Newport R.D.	Rural England	Newport R.D.	Rural England	Newport R.D.	Rural England
1906	22.6	26.3	14.9	15.0	81	115
1907	21.9	25.6	13.8	14.7	91	106
1908	22.4	26.2	16.9	14.7	133	110
1909	23.3	25.6	15.9	14.5	114	98
1910	21.3	25.0	15.8	13.6	94	96
1911	23.5	23.4	11.5	13.9	71	118

The birth-rate in the last six years has shown a marked fall from its former level. Last year, however, it was a little above the average.

The death-rate for 1911 was much below the average and is a low figure. The nett deaths numbered 69, of which 1 was due to whooping cough, 3 to pulmonary tuberculosis, and 2 to other

tuberculous diseases, 8 to cancer, 5 to bronchitis or pneumonia, 4 to accidents, and 1 to suicide. Of the 69 deaths 34, or 49 per cent., were of persons aged 65 years and upwards.

The infantile mortality rate for the year is also a low figure. Of the 10 infant deaths 2 were due to tuberculous disease, 5 to congenital debility, 1 to convulsions, and 1 to pneumonia. The rates in 1908 and 1909 were high, otherwise for the past six years the District rate has been below that of Rural England. The average annual rate for the six years is 97, which, compared with the rate for the previous six years 1900—05, viz., 113, shows a very satisfactory decline.

No infant death last year was attributed to diarrhœal disease. This is noteworthy in a year when the prolonged heat raised the infant death-rate in the country generally, and especially the deaths from diarrhoea.

INFECTIOUS DISEASES.

Only one death occurred from the chief epidemic diseases, viz., one due to whooping cough.

The incidence of notifiable infectious disease was light, the cases notified being scarlet fever 10, enteric fever 1, puerperal fever 1, and erysipelas 3. No case of diphtheria came to light.

Scarlet Fever.—The ten cases notified involved ten houses scattered over the District, and occurred in six different months. In no less than seven of the cases, investigation showed that the infection had most probably been contracted outside the District, two of the patients being day boys at Newport Grammar School, and infected there in a small outbreak in May. Another boy was no doubt infected at Newport National School. In a case on the border of the District at Donnington Wood the child attended school in Oakengates Urban District, where there were several cases. Another child attended school in Wellington, and a lad, living at Edgmond, worked daily in Newport. Lastly, in a case at Woodcote in December, the family had been in an

infected house outside the County. It is very satisfactory that with so many introductions of infection into the District there should have been no spread in any case beyond the person first attacked. This was not in every case due to the precautions taken, for in the case of the child who attended St. George's School in Oakengates Urban District, the case was not discovered until the child returned to school after some three weeks absence, and was found by the master to be peeling. In another case of a young adult at Donnington Wood the Inspector on his first visit found the patient out, and tracked him and found him in conversation with some workmen in the public road. The case was reported to the District Council, and as there was evidence that the patient had been informed by his medical man of the nature of his case, a prosecution for exposure was ordered and a conviction obtained, with penalty of 15s. inclusive of costs.

Two of the cases occurred on the premises of registered milksellers, and special care was taken to see that effective isolation was maintained. As a precaution the Donnington Wood and Woodcote schools were visited and a supply of Public Caution handbills left to be sent out in any cases where suspicion might arise. Caution Bills were also supplied to Edgmond school, and to St. George's school, for use in any suspected cases in the Rural District.

The case notified as enteric fever occurred at Lilleshall in February. It was quite obscure. Due precautions were taken.

The case of puerperal fever occurred at Donnington Wood in December. No midwife was in attendance. The house was visited and disinfectants supplied.

Some cases of measles were reported from Donnington Wood Infant School in January. I visited the School and advised its closure by the School Medical Officer. It was closed for four weeks. No other School was closed during the year on account of infectious disease.

Diphtheria Antitoxin Order.—The Council has arranged for a chemist in Newport to hold a stock of antitoxin for free distribution to medical men in cases of the poorer class.

PHTHISIS.

The deaths from phthisis during the year numbered 3, against 6 in 1910, and 8 in 1909, the average number for the past ten years being 5.3. Three cases were notified during the year under the Public Health (Tuberculosis) Regulations, one being a poorlaw case and two being hospital cases. The houses were visited by the Sanitary Inspector, enquiry forms filled up and leaflets of advice and disinfectants supplied. Special returns were received from the registrar in two of the fatal cases and the inspector visited and saw to disinfection of the rooms.

HOSPITAL ISOLATION.

There is no isolation hospital for the use of the District. An arrangement with the Newport Urban and Gnosall Rural Authorities for joint action in providing a tent hospital in case of small-pox arising, remains in force.

DISINFECTION.

The Sanitary Inspector disinfects infected rooms in nearly all notified cases with a spray apparatus. The Council also supplies disinfectants where necessary for use in infected houses.

No arrangement has yet been made by the Council, either separately or jointly with other Authorities, for the purchase of the small Emergency Steam Disinfector which I have from time to time recommended.

WATER SUPPLY.

The District is now well supplied as regards all the main centres of population and the majority of the inhabitants. The steps taken by the Council, and by the Duke of Sutherland as principal property owner, have been given in detail in previous reports.

A public system of supply is laid on to Church Aston and Chetwynd Aston villages. The water is taken in bulk from the Newport Urban District Council's supply. In 1908 this supply was extended by the Council to Pave Lane for the supply of 24 additional houses.

Lilleshall village, together with Muxton, Donnington, and the industrial area of Donnington Wood, all in the Lilleshall parish, are supplied by the works and mains of the Duke of Sutherland. Water is raised from a well sunk in the Bunter measures below Lilleshall village, on the north side, by a wind engine to a reservoir on Lilleshall Hill. The site of the well is at a safe distance from occupied dwellings. The completion of this system by its extension to include the populous area of Donnington Wood, in 1909, was a great gain and advance in the District's sanitation. Some of the houses on the higher levels of Donnington Wood are supplied by an extension of the Duke of Sutherland's Hilton well system, which supplies the adjoining Urban District of Oakengates. 264 out of 271 houses leased by the Lilleshall Co. are supplied.

Tibberton village is supplied by standpipes from a well outside the village, where the water is raised by a wind engine. This scheme was carried out by the Duke of Sutherland as principal property owner in the village.

Edgmond village has a private supply laid on to several houses from a well in the sandstone, by wind engine and reservoir, and a free supply is laid on to a public fountain in the village. This is a great boon, to the centre of the village especially, where the private wells were liable to run dry. Elsewhere the supply to individual houses and to a few small hamlets and groups of houses is from pumps and wells.

The Surveyor has supplied me with figures as to the various sources of supply in each of the nine parishes of the District, from an investigation recently made and as this reviews the supplies of all houses in the District, I think it of interest to record the figures.

<i>Parish.</i>	<i>No. of Houses.</i>	<i>Sources of Supply.</i>			
Cherrington	.. 35	Private Wells	..	..	.. 35
Chetwynd	.. 147	do.	do.	..	.. 147
Church Aston	.. 97	{ Council's Mains	..	..	.. 63
		{ Private Wells	..	..	.. 28
		{ Springs	..	..	.. 6
Chetwynd Aston	.. 72	{ Council's Mains	..	..	.. 37
		{ Private Wells	..	..	.. 32
		{ Springs	..	..	.. 3
Edgmond	.. 213	{ Private supply laid on to houses			8
		{ Private supply laid on to public			
		{ fountain	..	..	.. 35
		{ Private Wells	..	..	.. 170
Lilleshall (including Donning- ton Wood)	.. 597	{ Duke of Sutherland's Lilleshall			
		{ Hill, and Hilton Bank supplies			504
		{ Colliery Water	..	..	.. 4
Longford	.. 24	{ Private Wells	..	..	.. 89
		{ Lilleshall Hill supply	..	..	.. 1
		{ Springs	..	..	.. 2
Tibberton	.. 74	{ Duke of Sutherland's Tibberton			
		{ Supply	..	..	.. 51
		{ Private Wells	..	..	.. 23
Woodcote	.. 48	{ Lilleshall Hill Supply	..	..	.. 1
		{ Private Wells	..	..	.. 45
		{ Springs	..	..	.. 2

Total number of houses 1,307, of which 700 are supplied by public or private mains and reservoirs, and 607 by private wells and springs.

The storage capacity of the various reservoirs is given as follows :—

Edgmond, 22,000 gallons ; Lilleshall Hill, two reservoirs holding together 404,000 gallons ; Hilton Bank reservoir, 673,200 gallons ; Tibberton reservoir, 29,000 gallons.

Four samples of water from private wells were sent me for analysis by the Surveyor on the Council's direction. Three of the wells were in consequence reconstructed and protected from contamination.

No certificates of water supply for new houses were issued.

SEWERAGE, DRAINAGE AND EXCREMENT DISPOSAL.

The District being much scattered and with no large collection of houses upon a small area, there are few recognised public sewers. In Edgmond village, most of the houses are drained to one or other of four sewers, which have separate outfalls on the land. The Council has from time to time extended and coupled up these sewers, which were originally laid as road water drains, so as to serve for the greater number of houses, and to remedy many nuisances. An improvement of the outfall at the south-west end of the village was carried out by the Council during 1909, as described in my report for that year. The works are looked after by the Surveyor, and have been found when inspected to be free from objection. No new sewers or new connections to sewers were made during the year.

The drainage of Donnington Wood was greatly improved by a system of combined drainage carried out in 1905 by the Lilleshall Co., and the principal property owner. I described the course and extent of this work in the annual report for that year. The house drains and gullies are looked after periodically by the Company.

In other villages the house drains are often connected to the road water drains, and elsewhere individual houses have short lengths of slop water drains discharging on the gardens or fields, or in a ditch or water course, and generally without causing offensive accumulation. Comparatively very few houses have water closets, the general system being that of privies and vaults. The Sanitary Inspector has supplied the following statement as to the number of closets of each type in the District; he considers the numbers approximately accurate :—

Water closets 39; earth or pail closets 39; privies 1,094.

Six pail closets were substituted for old privies. The progress of the conversion of the old vault privies is slow. Generally speaking these old privies are in garden ground, well away from the houses. Wherever they are, by their situation, objectionable, or have become dilapidated or specially offensive from neglect, I strongly advise that steps be taken for their abolition and conversion to the more sanitary and manageable pail closets.

HOUSING.

In the agricultural area the housing conditions are, on the whole, fair, there being many good class modern cottages on the large estates. In the industrial area of Donnington wood there are many houses of unsatisfactory type, one-storey houses, often in long rows. The Lilleshall Mining and Manufacturing Company, the leaseholders of the greater part of the houses in the area, have done much good work in recent years, as detailed in previous reports, in structural repairs and in bringing about a marked improvement in the sanitary surroundings of the property. There remains the fact that a number of the houses are radically unsatisfactory in design and structure, and need very careful and thorough treatment to make them wholesome dwellings. The first essentials are to remove all causes of dampness of walls and floors, and to provide through ventilation to every house and adequate lighting space. The Company, in 1908 and 1909, ceiled 8 houses, provided through ventilation by new windows to six houses, relaid floors in 3, and re-roofed 2, providing also larger windows.

In 1910, eleven houses were overhauled, and repaired, including new windows in three cases, and new fireplaces to kitchen and bedrooms in 7. Last year one house was re-constructed internally and re-roofed, through ventilation being provided by new windows and doors. Another house was overhauled and provided with new windows giving through ventilation. A number of 'barrack' houses have been provided with through ventilation by means of new windows.

The ten houses in Church Barracks, referred to in previous reports, are being gradually closed by the Company as they are not considered worth the cost of the effective repair and reconstruction required to make them sound, and wholesomely habitable,

Housing (Inspection of District) Regulations. A good start has been made with this work. The Sanitary Inspector was appointed the officer to make the inspections, and the clerk to the Council the officer to keep the records. The Council formed a Committee to consider the records. A large number of houses was Scheduled by me for inspection, in consultation with the Inspector. Notice is sent in this District by the Inspector to the occupier, of the date of the intended inspection. The houses in the areas scheduled numbered considerably over one hundred, and included 56 of the Lilleshall Co.'s houses, those selected being an area of the more scattered houses at the Southern end of the District arranged to suit the convenience of Mr. Wheeler, the Company's house property manager, in dealing with the property. This property was not reached by the Council during the year.

The following table gives an analysis of work done in the year under the Regulations.

Number of houses inspected	94
Number of these houses thought to be unfit for human habitation	—
Number of representations to Sanitary Authority of unfitness	—
Number of closing orders made	—
Number of houses in which defects were remedied without closing orders	8
Number of houses put into a fit state after closure ..	—
Number of houses still under consideration	39

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF
THIS INSPECTION :—

Defects of—

(1) Water supply	14
(2) Closet accommodation	27
(3) Drainage	28
(4) Dwelling house in regard to—	
(a) Light	5
(b) Free circulation of air	54
(c) Dampness	34
(d) Cleanliness	5
(5) Paving, draining and sanitary condition of yard or outhouse	21
(6) Arrangements for deposit and disposal of house refuse	1
(7) Rooms unfit for habitation under Sec. 17 (7) ..	—
(8) Other defects	187
(Comprising defects of eaves gutter and down pipes	53
,, ,, general repair	29
,, ,, floors	26
,, ,, walls	23
,, ,, roofs	30
,, ,, internal surfaces	18
absence of food stores	8)

Of the 94 houses inspected the records of 60 were considered by the Council and orders for repairs etc., made. No houses were formally represented as unfit for habitation. From information supplied by the clerk, the houses dealt with by the Council were in three ownerships .

1. As to 8 houses in Church Aston parish, the owner decided to demolish all the houses and has built 5 new houses in place.
2. As to 39 houses in Church Aston, the owner's agent undertook to deal with them in batches, 13 of them to be put in repair by the end of the year. In the result the Inspector reports that 8 of them have had defects remedied in part up the end of the year.

3. As to a row of 13 old houses in Lilleshall, the Council issued closing orders. The owner considered the houses not worth repair. The Council has now revoked the order, a number of the houses being void and others occupied by old people and pensioners for whom they form tolerable dwellings. The houses will, it is understood, be demolished in course of time.

A very large amount of repairs and additions and improvements to houses, buildings, and sanitary surroundings, has been carried out on the large Lilleshall Estate by the owner during the year, as estate improvements. The Inspector furnishes a return of the work done, from which it appears that the houses dealt with comprise 5 in Chetwynd Aston, 30 or more in Lilleshall; 8 in Muxton, and 13 in Donnington.

PERMISSIVE POWERS.

The Public Health Acts (Amendment) Act, 1890 and 1907, and the Infectious Disease (Prevention) Act, 1890, are not adopted in the District.

The Council possesses no Urban powers, and no by-laws have been made.

SLAUGHTER-HOUSES.

No register is kept and there are no by-laws in force. There are three slaughter houses in the District, which are visited by the Sanitary Inspector occasionally at times of slaughtering. No tuberculous carcases were found.

DARIES, COWSHEDS, AND MILKSHOPS.

The Council, in 1907, adopted the Model Regulations under the Dairies, Cowsheds, and Milkshops Order, 1885. No action has been taken by the Council for the veterinary inspection of milch cows. A complaint was received as to milk, supplied in a neighbouring District from a cowkeeper in this District,

showing a red deposit on standing. By my instruction the Inspector advised the cowkeeper to call in a Veterinary Surgeon. This was done and the cows were examined and reported to be free from evidence of disease and the udders in healthy condition. No further complaint was received.

BAKEHOUSES.

There are two on the register. They are inspected periodically.

SANITARY INSPECTION.

Mr. J. H. Ward was appointed Sanitary Inspector in 1905, and he also holds office under the Council as Surveyor of Highways. He is an Associate of the Royal Sanitary Institute.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	270
Number of legal notices sent	15
Number of informal notices sent	3
Number of such notices complied with	16
Number of letters written	149

PARTICULARS OF SANITARY MATTERS REFERRED TO IN THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease ..	—
(b) Deficient or objectionable water supply ..	3
(c) New drains to be constructed or old drains to be amended	17
(d) New closets to be provided or old ones to be amended in construction	2
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	19
(f) Offensive accumulations of all kinds	1

(g) Animals so kept as to be a nuisance ..	1
(h) Houses overcrowded	2
Houses disinfected after infectious disease (other than phthisis)	15
Houses disinfected in cases of phthisis	2
Privies converted to water closets	—
Privies converted to earth closets	6
Plans for new houses passed	—
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	—
Repairs to public pumps and wells	—
New public wells	—
Private wells re-constructed or improved	3
Houses connected to public sewerage	—
Lengths of new sewers laid	—
Lengths of new water mains laid	—
Proceedings before Magistrates— <i>Nil</i> .	

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS FOR
THE YEAR ENDING 31ST DECEMBER, 1911 :—

Number of cowkeepers and milksellers on register ..	38
Number of premises—cowsheds	35
dairies	16
milkshops	—
Number of inspections	152
Defects found (1) in cowsheds—	
(a) floor or cubic space	—
(b) ventilation	—
(c) lighting	—
(d) structure of floor	2
(e) drainage	2
(f) cleanliness	70
(2) in surroundings of cowshed	1
(3) in sanitary condition of drains	2
(4) in sanitary condition of milkshops	—
(5) in water supply	—
Number of notices—verbal and written	77
Number of these notices complied with	76
Number of defects found and not remedied	1

WHITCHURCH RURAL DISTRICT.

				1901	1911
Area in acres (exclusive of water)	..	..	..	11645	11645
Population (Census)	..	..	..	1924	1935
Inhabited houses (Census)	..	..	..	424	—
Persons per house	..	..	..	4.5	—
Rateable value, April 1st	..	..	..	—	£20607
A penny rate produces	..	..	..	—	£57
No. of parishes	..	..	..	2	2
Death-rate per 1000	..	..	..	12.8	8.8
Birth-rate per 1000	..	..	..	18.0	15.5

PHYSICAL FEATURES AND GENERAL CHARACTER.

The District lies within the northern border of the county, adjacent, along its northern boundary, to the Whitchurch Urban District. The general elevation is from 300 to 400 feet O.D., the contour being gently undulating. The subsoil is the red marl of the new red sandstone, with the exception of a small area in the south-east, where an outlier of the Lias occurs at Ightfield. There is generally a considerable thickness of morainal drift covering the strata. The natural drainage is by small streams to north and south, the water partings between the Weaver, Dee, and Severn river systems crossing the District. The District is entirely rural in character, and the population scattered, the small villages of Tilstock, Ash, Broughall (all in the large parish of Whitchurch Rural), and Ightfield, comprising the main collection of houses. The land is largely employed for grazing and dairy farming. The District is naturally very healthy, the average death-rates for preceding years being low.

POPULATION.

The population of the Rural District was 1924 at the 1901 Census, and 1935 at the Census of 1911, an increase of eleven persons during the 10 years. In the preceding 10 years, 1891—1901, the population decreased by 107. It is satisfactory to find that the decrease of population in a purely rural District should have stopped.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.* for England and Wales less the 213 large towns. The Birth and Death Rates are calculated per 1000 of population, and the Infant Mortality on the deaths on infants under one year per 1000 born during the year.

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Whit-church R.D.	Rural England	Whit-church R.D.	Rural England	Whit-church R.D.	Rural England
1906	22.8	26.3	12.4	15.0	114	115
1907	17.1	25.6	14.5	14.7	30	106
1908	17.1	26.2	11.9	14.7	—	110
1909	21.2	25.6	8.3	14.5	—	98
1910	18.6	25.0	14.5	13.6	139	96
1911	15.5	23.4	8.8	13.9	133	118

The Birth-rate for the year is a very low figure. During the past six years the rate has been much below that of Rural England.

The death-rate is also extremely low for the year. The District has one of the lowest average death-rates in the County, the average annual rate for the past six years being 11.6. Of the 17 nett deaths during the year none was attributed to any of the infectious diseases and none to tuberculosis, pulmonary or otherwise. Three deaths were due to cancer.

The Infantile Mortality is a high figure for the year. The section of population being very small these rates are liable to great fluctuations. Taking the past six years the average infant mortality rate has been 69 per 1000 births, a very favourable figure. The infant deaths last year numbered 4 and are calculated upon an exceptionally small number of births during the year. All the deaths occurred during the first 3 weeks of life, 2 being due to congenital debility, one to injury at birth, and one to convulsions. There was no death from diarrhoeal disease.

INFECTIOUS DISEASE.

Only one case of infectious disease was notified, a very slight case of scarlet fever at Tilstock in November. Due precautions were taken and there was no spread. In the previous year 22 cases of scarlet fever and 3 of diphtheria occurred.

No outbreaks of measles, whooping cough, or any of the minor infectious diseases occurred during the year.

Diphtheria (Antitoxin) Order, 1910. — The Council has arranged for the free supply of antitoxin to medical men for cases of the poorer class, a chemist in Whitchurch being contracted with to hold a stock.

PHTHISIS.

There was no death from phthisis and no notification of a case was received under either of the Public Health (Tuberculous) Regulations. The District has a low average death-rate from phthisis, the average number of deaths for the past ten years being 0.8 per 1000 living, giving a rate of 0.414 or less than half that of the County.

HOSPITAL ISOLATION.

The Rural District is included in the large area of several districts served by the Whitchurch Joint Small-pox Hospital erected in 1903 at Prees Higher Heath. There is no isolation accommodation for other infectious diseases.

DISINFECTION.

The Sanitary Inspector disinfects infected rooms in nearly all notified cases. A spraying apparatus and formalin lamp are provided by the Council.

Acting upon my recommendation the Council has now purchased an 'Emergency' Steam Disinfector, jointly with the Whitchurch Urban District Council.

WATER SUPPLY.

There is no combined system of supply in the District, but the Council has, as described in former reports, done much to improve the village supplies. At Broughall and Tilstock, new wells in good situations have been sunk, with proper structural precautions, and public pumps erected and connected by lateral suction pipes to the wells. Ightfield has had a pump open to the public for many years.

Tilstock.—As I have reported annually for several years the public pump and well have been a failure, owing to the originally faulty condition of the suction pipe, some 300 yards or more in length, which gave the water at first a pronounced tarry flavour, and now supplies a water discoloured by iron rust. The Council obtained a report from the Surveyor to the Urban District last year, who advised relaying the pipes with cast iron pipes properly 'dipped' in protective solution at the factory. No further action has been taken. Towards the end of last year I found the water in much better condition as regards colour and taste, and found that owing to the drought the pump had been put to considerable use during the summer. I do not think that the water will ever be satisfactory or acceptable until the pipe is re-laid, and I would point out to the Council that the well has shown itself to be the most reliable source in the neighbourhood, and that the private wells in the village are not safe sources of supply, as has been shown by analysis in past years, and as is natural from the situation of the wells as regards possibilities of pollution and from their mode of construction.

Ash.—The village is supplied, as described in previous reports, by a public pump to which water is laid on from a private source supplying two residences. The supply well is in a good situation in pasture land, and the water is raised by a wind engine. The Council pays £5 a year for the right to take water, and has laid a main on 340 yards of 1-inch galvanised iron pipe from the reservoir to a tank under the pump. The arrangement appears to work very well. I have pointed out that there are some half-dozen houses distant 300 yards from the pump, to which an extension of the supply is desirable.

Ightfield.—Most of the village obtains a good supply from a pump on the roadside. I called attention in the two last reports to the defective supply to some seven houses at the north end of the village, owing to the absence of proper protection of a spring well on private ground from which water is carried, and to the bad access to the well. The Council has been in communication with the various owners of the houses with a view to their taking action, but no action has resulted so far.

Elsewhere individual houses, and groups of houses, depend upon shallow wells and pumps, or upon springs or dipwells, from which water is carried. No certificates of water supply to new houses were issued during the year.

DRAINAGE AND EXCREMENT DISPOSAL.

There is a combined drainage in Tilstock village, by three drains, originally laid for road water, to which the slop-water drains of houses have been connected. Two of these discharge into the brook in the village, the third having an outfall on the land.

At Broughall is a length of sewer laid and maintained by the Council, taking the slop-water drainage from several cottages, two farms, and the school and the school house. The outfall is to a small stream.

Elsewhere there are few, if any, combined drains, individual houses having short lengths of drain discharging on the gardens or land, or into streams or ditches.

Water-closets are very few in the District, being confined to the larger residences. A comparatively small number of pail closets are found in Tilstock village and elsewhere. With these exceptions privies of old type, with underground vaults, are in common use. Not much in the way of conversion of these into earth or pail closets has been done in recent years. There is scope for this work, and I would again recommend that defective and offensive old privies, especially such as by their situation are dangerous to well water supplies, should be required to be abolished and pail closets substituted.

HOUSING.

Housing accommodation appears on the whole to be adequate in amount, and the condition of cottages is generally fair though many there are a good of very old construction, and tending to decay. There is ample air space around houses, and as a rule surroundings are cleanly.

Housing (Inspection of Districts) Regulations.—The following is an analysis of work done during the year under these Regulations, furnished by the Inspector :—

Number of houses inspected	.. .. .	24
Number of these houses thought to be unfit for human habitation	.. .. .	1
Number of representations to Sanitary Authority of unfitness..	.. .. .	1
Number of closing orders made	.. .. .	1
Number of houses in which defects were remedied without closing orders	.. .. .	—
Number of houses put into a fit state after closure	.. .. .	—
Number of houses still under consideration	.. .. .	12

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION.

Defects of—

(1) Water supply	8
(2) Closet accommodation	3
(3) Drainage	8
(4) Dwelling house in regard to—	
(a) Light	—
(b) Free circulation of air	—
(c) Dampness	3
(d) Cleanliness	—
(5) Paving, draining and sanitary condition of yard or outhouse	—
(6) Arrangements for deposit and disposal of house refuse	—
(7) Rooms unfit for habitation under Sec. 17 (7)	—
(8) Other defects	—

Not much work has been done so far under these Regulations, owing to the ill health and resignation of the former Sanitary Inspector, and to an interval of six months before his successor was appointed. I prepared a list of houses to be inspected. The details of inspection made were recorded and considered by the Council. One old cottage, void, at Tilstock, was considered by the Council to be unfit for habitation, and was closed. The new Inspector reported in December, on 8 houses at Diglake, Tilstock, and on two at Ash Lane. The Council directed the serving of preliminary or informal notices for repairs and re-drainage. The work at Diglake has been delayed by the death of the owner. In the other two cases the work has been done.

No plans for new dwelling houses were passed during the year.

PERMISSIVE POWERS.

The Public Health Acts (Amendments) Acts, 1890 and 1907, are not adopted. The Infectious Disease (Prevention) Act, 1890, is adopted with the exception of sections 5, 6, 15, and 17. The Council have Urban Powers enabling them to make By-laws with respect to nuisances, and new streets and buildings.

By-laws.—Bylaws have been made with respect to—

Private Scavenging.

Common Lodging Houses.

Nuisances.

New Streets and Buildings.

There is no common lodging house in the District now.

SLAUGHTER HOUSES.

There is one slaughter house in Broughall township. Inspection is made periodically and occasionally at times of slaughtering. The Sanitary Inspector has not found any tuberculous carcasses at his visits.

DAIRIES, COWSHEDS, AND MILKSHOPS.

Regulations were made by the Council in 1899. There are now nine cowkeepers and milksellers on the register.

SANITARY INSPECTION.

Mr. T. T. Chubb, who had held the post of Sanitary Inspector since 1876, resigned office on March 31st. Mr. Sidney Bailey, the Surveyor to the Council, was appointed to succeed him and took office on October 2nd. The record of inspection and work for the year is not large, and is mainly a record of the present Inspector's work.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	40
Number of legal notices sent	6
Number of informal notices sent	3
Number of such notices complied with	9
Number of letters written	6

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	I
(b) Deficient or objectionable water supply ..	I
(c) New drains to be constructed or old drains to be amended	—
(d) New closets to be provided or old ones to be amended in construction	10
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition	5
(f) Offensive accumulations of all kinds	—
(g) Animals so kept as to be a nuisance ..	—
(h) Houses overcrowded	I
Houses disinfected after infectious disease (other than phthisis)	I
Houses disinfected in cases of phthisis	—
Privies converted to water closets	—
Privies converted to earth closets	—
Plans for new houses passed	—
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	—
Repairs to public pumps and wells	I
New public wells	—
Private wells re-constructed or improved	I
Houses connected to public sewerage	—
Lengths of new sewers laid	—
Lengths of new water mains laid	—
Proceedings before Magistrates— <i>Nil</i> .	

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS FOR
THE YEAR ENDING 31ST DECEMBER 1911.

Number of cowkeepers and milksellers on register ..	9
Number of premises—cowsheds	9
dairies	—
milkshops	—
Number of inspections	18

Defects found (1) in cowsheds—

(a) floor or cubic space	..	..	..	—
(b) ventilation .. ..	..	..	..	—
(c) lighting .. ..	..	..	..	—
(d) structure of floor .. ..	..	..	..	—
(e) drainage .. ..	..	..	..	—
(f) cleanliness .. ..	..	..	..	—
(2) in surroundings of cowshed .. ..	..	..	..	—
(3) in sanitary condition of drains .. ..	..	..	..	—
(4) in sanitary condition of milkshops .. ..	..	..	..	—
(5) in water supply .. ..	..	..	..	—
Number of notices—verbal or written .. ..	..	..	..	6
Number of these notices complied with .. ..	..	..	..	6
Number of defects found and not yet remedied .. ..	..	..	..	—

DAWLEY URBAN DISTRICT.

	1901	1911
Area in acres (exclusive of water)	2755	2755
Population (Census)	7522	7701
Inhabited houses (Census)	1633	—
Persons per house	4.6	—
Rateable Value, April 1st	—	£17270
A penny rate produces	—	£50
Death-rate per 1000	15.3	13.2
Birth-rate per 1000	31.7	26.9

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The District lies at a considerable elevation upon the Shropshire Coalfield and table-land, of which it forms one of the higher parts. Its surface falls irregularly from north and north-west to south and south-east, and from 670 feet O.D. to some 400 feet O.D. roughly. The surface drainage is good owing to the steep fall of this part of the northern watershed of the Severn. The geological formation is the Carboniferous, the District being for the most part upon the Coal Measures, but with small exposures of the Millstone Grit in the south-western part.

As regards its general character, it may be described as a coal and iron-mining and iron-working district largely worked out. Coal mines long out of work and dismantled ironworks are common features. At the present time it is chiefly the place of residence of an industrial community, many of whose members work in one or two large modern engineering or pottery works within the District, while large numbers work in mines, ironworks, and brick and tile works outside the District.

For an urban community it is very scattered in character, There is a compact business centre, with some continuous lengths of houses radiating for some distance from it along the main roads. The rest of the District is practically rural in character, with houses isolated or in groups of more or less number.

The District is naturally very healthy, being high, dry, and wind swept, and surface drainage being good.

POPULATION.

The population of the Urban District at the 1901 Census was 7,522, and at the 1911 Census 7,701; an increase of 179 persons in the ten years. During the ten years 1881—1891, the population fell off by upwards of 2,000 persons. This was in consequence of the closure of large ironworks and mines in the District. It is satisfactory to note that during the past twenty years the population has shown a steady recovery, consequent upon the development of new industries in the District.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The birth and death-rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality	
	Dawley U.D.	Rural England	Dawley U.D.	Rural England	Dawley U.D.	Rural England
1906	26.3	26.3	16.1	15.0	165	115
1907	28.5	25.6	14.0	14.7	92	106
1908	30.2	26.2	16.1	14.7	147	110
1909	26.6	25.6	15.6	14.5	103	98
1910	27.8	25.0	10.9	13.6	70	96
1911	26.9	23.4	13.2	13.9	111	118

The birth-rate has shown a decided decrease in the past six years. It is still, however, above that for Rural England.

The death-rate for the year is below the average, though not exceptionally low as was the rate for 1910. It is interesting, if not significant, to note that the two years of reduced death-rate have followed the laying on of the water supply by the Council in 1909. Six deaths were due to phthisis, and one to other tuberculous disease; 8 to cancer, 10 to bronchitis, 9 to pneumonia, 5 to diarrhœal disease, and 2 to accident or violence.

The deaths of infants under one year numbered 23, of which four were due to diarrhœal disease, 11 to premature birth or debility, 1 to convulsions, 4 to bronchitis, and 2 to pneumonia. Twelve of the infants died within three weeks of birth. The rate for the year is not exceptionally high, but the average rate for the past six years has been 114 per 1000 births, which cannot be regarded as a satisfactory figure, and the District is one in which good work should be done by the adoption of the Notification of Births Act, and a system of health visiting by which mothers would be advised in the feeding and care of infants, and in the care of their own health during the time of child bearing.

INFECTIOUS DISEASES.

No death was attributed to scarlet fever, diphtheria, enteric, measles, or whooping cough.

Scarlet fever was more prevalent than in any recent year. Forty-five cases were notified, or discovered on investigation, against 9 in 1910. The disease was generally of very mild type, but showed more tendency to spread in spite of precautions than has been usual in the District. The slowness of most of the known cases indicated the probability that a good many of similar very mild character were 'missed' or undiscovered cases, and such were no doubt the means of spreading infection.

The 45 cases occurred in 34 houses, and in 27 of these houses the infection was limited to a single case, although as a rule there were other children in the house than the one infected, and in several instances large families of young children. In such cases isolation in a small house could not be effectively maintained. The spread of infection in scarlet fever presents difficult problems. On the one hand a recognised case in a house full of children of susceptible age often appears not to spread infection ; on the other hand the spread of infection from house to house, or from child to child in school, is only explicable by the existence of unknown cases, so slight as to escape detection, and yet capable of carrying and communicating infection.

No case came to light before May, and 27 of the cases occurred before the end of July. These earlier cases affected Lightmoor, Doseley, and Horsehay, and the infection appeared to be an extension from the neighbouring district of Madeley. A few cases arose each month from August to the end of the year, but these were scattered about the District, and no definite connection either with schools, or with other cases, could be traced.

All cases were visited and investigated. In a few instances previous ' missed ' cases were discovered. In one such there appeared to have been an unrecognised case in the family in February, and a second in May, both these being thought by the mother to be measles ; and it was only on a third case occurring in the house in May that the disease was recognised.

I paid visits to the schools at various times. No school was extensively involved, but in view of the somewhat rapid increase of cases early in June I advised the closure of the Dawley Church of England, and Pool Hill Schools, by the School Medical Officer, as these schools served the area chiefly affected. The schools were closed on June 12th, and the closure was prolonged on my advice till the end of the summer holidays in August.

Public Caution handbills were circulated, calling parents' attention to the need for care in observing suspicious symptoms and calling in medical advice. These handbills were also supplied

to the schools, and the teachers were asked to send them to the homes of any children whose absence was not satisfactorily explained. In some cases the Sanitary Inspector made a house to house delivery of the handbills. The effect of these measures was good, resulting in medical advice being called in to slight cases, and in their notification.

Diphtheria.—Three cases were notified in two houses. One outbreak was at Lightmoor in May, and one at Hinkshay in November. The cases were slight.

Diphtheria (Antitoxin) Order, 1910. The Council has contracted with a chemist for the free supply of antitoxin to medical men for use in cases of diphtheria among the poorer class.

Measles was prevalent in the northern half of the District in the first quarter of the year, and led to the closure of the following schools, by the managers under the authority of the School Medical Officer, on account of diminished attendance and interference with school work :—Langley Council (Infants') in January; Dawley C.E. (Infants') and Malins Lee Institute (Infants') in February; Malins Lee (Infants') and Pool Hill Council (Infants') in March.

PHTHISIS.

The deaths from phthisis in the year numbered 6, against 5 in 1910, the average annual number for the past ten years being 6.2. This gives a rate which is slightly below that of the County.

Four notifications were received under the Public Health (Tuberculosis) Regulations, 1911. Three of these were of patients admitted to the Shropshire Sanatorium, and one was from the National Hospital, Ventnor. In this case the patient returned home later and died, and the Inspector visited and disinfected the premises after death. In the other cases I notified the Inspector, in order that the households should be visited and receive leaflets of advice.

Special returns were received from the Registrar as to four deaths from phthisis, and the premises were visited by the Inspector and disinfected.

ISOLATION ACCOMMODATION.

The District maintains a Joint Small-pox Hospital with the adjoining Rural District of Shifnal. The hospital is situated at the Nedge, in Shifnal R.D. There is no resident staff, and no isolation accommodation for other infectious diseases.

DISINFECTION.

The Sanitary Inspector sprays out infected premises after recovery of the patient in notified cases, the Council also providing disinfectants during the course of the illness.

I have recommended the provision of a small portable steam disinfecter, so that in suitable cases such articles of bedding and clothing as cannot be washed may be disinfected with certainty. No action has so far been taken in this matter.

WATER SUPPLY.

The District has a public system of supply carried out by the Council and completed in 1909.

The supply is from the Madeley reservoir of the Borough of Wenlock Water Works, delivered at the District Council's pumping station, by meter, at a charge of 6d. per 1000 gallons up to 50,000 gallons per diem, and 5d. per 1000 gallons for any quantity in excess up to 100,000 gallons, which is the limit of supply. The water is pumped to two reservoirs in the higher parts of the District, one reservoir holding 175,000 gallons for the general supply of the District, while a smaller high level reservoir of 25,000 gallons serves to supply the highest part of the District. Combined standposts and fire hydrants are used, the standposts being placed as far as possible to be within easy reach of the houses. The number of standposts is 118.

From particulars supplied by the Surveyor it appears that during the year the Council laid 3,517 yards of watermain, extending the supply to Burrough's Bank and Cherry Tree Hill, and to Lightmoor, at the south end of the District ; to Hinkshay on the eastern side ; and in the Old Park District at the north end. These extensions provide for the supply of 54 houses.

The water was laid on to 47 houses during the year. The number of houses now connected to the mains is returned by the Surveyor as 283 ; the number supplied by wells, etc., outside the rating distance from the public supply, is 156 ; this leaves some 1,231 houses as the number supplied from the Council's standposts, or within the rating distance from standpipes. The Public Health (Water) Act, 1878, was adopted in 1910 under official sanction, giving power to rate houses within 200 feet of the standpipe.

I analysed samples of water from three private wells, at the request of the Council. The water in each case having been found to be unsafe for drinking, the public supply was taken.

The Surveyor states that the average daily consumption of water has increased somewhat, and is now about $3\frac{1}{2}$ gallons per head. The average daily quantity used in the District during the year was 24,229 gallons.

SEWERAGE AND DRAINAGE.

The sewers of the District are being improved by the Council from year to year. Many of the old sewers are rough culverts with large, and in some cases frequent, catchpits in their length, but all new work is laid in pipes with cement joints, and with manholes, and generally designed to form part of any system of sewerage that may be carried out in the future.

The outfall of the main Sewers is as a rule, into long open channels running through and out of the District and finally into water courses draining to the Severn. Considerable purification is evident in some of these open channels, running deviously

through rough ground and between disused pitmounds and cinder hills. With the laying on of the water supply and consequent increased use of water, the amount of sewage will be similarly increased, and the question of satisfactory disposal of the sewage will call for attention. As I have previously reported, the Council has for some years been engaged in re-modelling, extending and linking up the sewers, doing work each year as resources have permitted. As stated in last year's report the Council has obtained a report and plans for an ultimate complete system of sewerage and sewage disposal, and all new work is designed and carried out to fit in with this system and to comply with the Local Government Board's general requirements. During last year 200 yards of main sewer were laid. This was in two lengths, one being in Crown Street, Finger, the other at Hinkshay, for the Stone Row houses.

Little Dawley.—The small outfall works in connection with the Little Dawley sewer, referred to in last year's report, are provided for in the estimates for this year.

Twelve houses were connected to the public sewers during the year, and a large number of premises were re-drained or had their drainage improved and amended in consequence of the Inspector's notices or representations, in connection with inspections made under the Housing, Town Planning, etc., Act., or in routine inspection of the District. The conditions of drainage are being steadily improved in the District.

EXCREMENT DISPOSAL AND SCAVENGING.

Privy closets with underground vaults of old and objectionable type are in common use. The Sanitary Inspector returns the number of water closets in the District as 51, earth or pail closets 26, and privies 1,231. With the water supply now laid on, and with improvements in the sewerage, a greater proportion of water closets may be expected to come into use, and with decided sanitary advantage in the more central and urban parts. During the year six privies were converted to w.c.'s and eleven to pail closets.

Scavenging.—The Council offers scavenging facilities to the householders under a system which I have described in previous reports. The Council provides a horse and cart for the scavenging of privies and removal of house refuse at cost price of the work. The number of privies and pail closets scavenged during the year was 470, against 275 in 1910, and 300 in 1909. The Surveyor arranges terms of regular scavenging in the case of pail closets at the lowest possible cost. Many householders get the scavenging of privies done directly by a farmer. One advantage of the public scavenging facilities is that the Inspector is enabled to enforce prompt scavenging of privies, and of house refuse, where undue accumulations are found.

HOUSING.

The number of persons per house at the 1891 Census, and at the 1901 Census, was 4.6. The majority of houses are small, some 73 per cent. being returned at the Census as having four rooms or less. The houses are for the most part of old construction. Increased demand for houses has led to a good deal of improvement in recent years, and a much better state of repair is noticeable everywhere than was to be seen ten years ago. Much of this work has been effected by the Surveyor and Sanitary Inspector's direct efforts.

Housing (Inspection of Districts) Regulations.—The following is an analysis of work done in the year under these Regulations :—

Number of houses inspected	.. .. .	98
Number of these houses thought to be unfit for human habitation	.. .. .	—
Number of representations to Sanitary Authority of unfitness	.. .. .	—
Number of closing orders made	.. .. .	—
Number of houses in which defects were remedied without closing orders	.. .. .	81
Number of houses put into a fit state after closure	..	—
Number of houses still under consideration	.. ..	17

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF
THIS INSPECTION.

Defects of—

(1) Water supply	17
(2) Closet accommodation	71
(3) Drainage	77
(4) Dwelling house in regard to—	
(a) Light	22
(b) Free circulation of air	29
(c) Dampness	78
(d) Cleanliness	16
(5) Paving, draining and sanitary condition of yard or outhouse	34
(6) Arrangements for deposit and disposal of house refuse	50
(7) Rooms unfit for habitation under Sec. 17 (7)..	—
(8) Other defects	—

Good work has been done by this inspection. In consultation with the Sanitary Inspector I prepared a list of a large number of houses for early inspection, taking rows and groups of houses, and some areas. The Inspector's records of inspection have been regularly considered by the Sanitary Committee, who give orders where necessary for notices to be served to remedy defects. To a large extent, however, the work has been done by preliminary notices served by the Inspector, detailing the defects and offering advice and assistance to the owner in remedying them. The analysis shows that of 98 houses inspected all showed more or less defect, and 81 were put into a state of repair during the year. No house was found to require representation as unfit for habitation, the owners being found willing to undertake the improvements required. Improvements in lighting and ventilation of living rooms and bedrooms, through ventilation by provision of back doors and windows, repairs to external and internal structure, paving of yards or part of yards, removal of earth from house walls, have been the principal measures, together with re-drainage and re-construction of privies, and in some cases provision of washhouses and pantries.

In a District such as this, where the proportion of cottage property is so large, and generally of old construction, and where there is little building of new houses, this system of inspection, properly followed up, will be found of the greatest value in raising the level of housing and of general sanitation. The standard aimed at should be consistently high, and the most important matters of adequate lighting and through ventilation of houses, and removal of all remediable causes of dampness should receive special attention.

Plans for five new houses were passed by the Council under the Building By-laws.

There is little crowding of houses on area, most houses having gardens, or in the small compact centre good yard space. The surroundings of houses are found to be considerably more cleanly in recent years, the clearing off of old accumulations of refuse, and re-drainage of premises, having effected much improvement. Cases of overcrowding come to light from time to time. Three such were dealt with during the year. Some undesirable overcrowding is inevitable where houses are small and families are large. In cases where overcrowding is caused by adult sons and daughters remaining at home, or by lodgers being taken in, stringent action should be taken.

PERMISSIVE POWERS.

Part III. of the Public Health Acts (Amendment) Act, 1890, was adopted in 1902. The Infectious Disease (Prevention) Act, 1890, is not adopted in the District.

The adoption of certain parts of the Public Health Acts Amendment Act, 1907, has been under the Council's consideration.

The Council has made By-laws with respect to :—

- Nuisances,
- New Buildings,
- Slaughter-houses,
- Common Lodging Houses.

The By-laws as to new buildings are in the form of the Model code for Rural Districts, referring especially to drainage and sanitation. They came into force in 1905. Plans for five houses were passed during the year.

SLAUGHTER HOUSES.

There are 11 on the register. They are inspected regularly, and visited by the Inspector at times of slaughtering. Two tuberculous carcasses were found, and were surrendered and destroyed.

Accumulations of offal and offensive manure were found on some slaughter-house premises. Attention was called to the breach of the By-laws, and arrangements for regular removal have been made.

The question of killing pigs on unlicensed premises came up during the year. I advised that every person who carried on a business of pig killing for sale of the pork should not be allowed to kill on any but licensed premises, and should be made to apply for licence under the By-laws for Slaughter-houses.

DAIRIES, COWSHEDS AND MILKSHOPS.

Regulations under the Dairies, Cowsheds and Milkshops Order, 1885, were made in 1904. The number of dairies, etc., on the register at the end of 1911 was 25. The Inspector pays periodical visits of inspection. Fifty-four notices were served by the Inspector, but these were mainly routine notices for periodical limewashing.

BAKEHOUSES.

There are 11 bakehouses on the register. The general condition is fair, and limewashing is done regularly, under the general supervision of the Sanitary Inspector. Most of these bakehouses are small premises, often in connection with a local grocery or general store business, and worked by the occupier and his family.

There is no common lodging house in the District now.

SANITARY INSPECTION.

Mr. R. Lewis Price was appointed Sanitary Inspector in 1902, he also holds office under the Council as Surveyor and Rate Collector. He is a Member of the Royal Institute of Sanitary Engineers, and holds the certificate of the Royal Sanitary Institute.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..					835
Number of legal notices sent					4
Number of informal notices sent					145
Number of such notices complied with					149
Number of letters written					350

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	31
(b) Deficient or objectionable water supply ..	—
(c) New drains to be constructed or old drains to be amended	38
(d) New closets to be provided or old ones to be amended in construction	8
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	1
(f) Offensive accumulations of all kinds	158
(g) Animals so kept as to be a nuisance	2
(h) Houses overcrowded	3
Houses disinfected after infectious disease (other than phthisis)	27
Houses disinfected in cases of phthisis	4

Privies converted to water closets	6
Privies converted to pans	2
Plans for new houses passed	5
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	47
Repairs to public pumps and wells	—
New public wells	—
Private wells re-constructed or improved	—
Houses connected to public sewerage	12
Lengths of new sewers laid	200 yards.
Lengths of new water mains laid	3517 yards.
Proceedings before Magistrates— <i>Nil</i> .	

The particulars in this statement are separate and distinct from those given in the analysis of work done under the Housing, etc., Regulations.

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS FOR THE YEAR ENDING 31ST DECEMBER, 1911:—

Number of cowkeepers and milksellers on register ..	25
Number of premises—cowsheds	25
dairies	25
milkshops	—
Number of inspections	58
Defects found (1) in cowsheds—	
(a) floor or cubic space	—
(b) ventilation	1
(c) lighting	1
(d) structure of floor	2
(e) drainage	2
(f) cleanliness	4
(2) in surroundings of cowshed	1
(3) in sanitary condition of drains	1
(4) in sanitary condition of milkshops	—
(5) in water supply	—
Number of notices—verbal and written	54
Number of these notices complied with	54
Number of defects found and not yet remedied..	—

NEWPORT URBAN DISTRICT.

				1901	1911
Area in acres (exclusive of water)	..	..	..	761	761
Population (Census)	..	..	..	3241	3250
Inhabited houses (Census)	..	..	..	720	—
Persons per house	..	..	..	4.5	—
Rateable value, April 1st	..	..	..	—	£14704
A penny rate produces	..	..	..	—	£50
Death-rate per 1000	..	..	..	14.1	13.5
Birth-rate per 1000	..	..	..	23.3	21.2

PHYSICAL FEATURES AND GENERAL CHARACTER.

The Urban District is of small area, of rather more than a square mile, lying on the eastern border of the County. It is level in contour, the general elevation being some 250 feet above Ordnance Datum. The natural drainage is to the west, but there is no stream of any importance. The subsoil is the Bunter beds of the New Red Sandstone. The District includes the town of Newport, consisting chiefly of one long and wide street about one mile in length, running north and south, with several narrow lanes and passages and courts running from it at right angles. This part of the town is old and compact, and there is about the centre some crowding of houses upon area. To east and west is open country with extensions of more modern villa residences and artisan cottages along the roads converging on the town, and some outlying collections of houses. Newport is a market and residential town. There is a brewery and a gas-works, and a creamery. The Newport Union Workhouse is within the District.

The population of the Urban District was 3,241 at the 1901 Census, and 3,250 at the 1911 Census, an increase of 9 persons in the ten years. In the ten years 1891—1901 the population decreased by 162.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Newport U.D.	Rural England	Newport U.D.	Rural England	Newport U.D.	Rural England
1906	24.3	26.3	18.8	15.0	127	115
1907	27.1	25.6	12.6	14.7	102	106
1908	22.1	26.2	14.8	14.7	69	110
1909	22.8	25.6	12.6	14.5	41	98
1910	20.6	25.0	14.5	13.6	104	96
1911	21.2	23.4	13.5	13.9	87	118

The birth-rate has fallen off in recent years, and is now distinctly below the average for Rural England.

The death-rate has varied in the past six years, as is to be expected in a small section of population. The average rate for these years, 14.4, is the same as that for Rural England for the same period. Of the 44 nett deaths 21, or 48 per cent., were of persons aged 65 years and upwards. One death was due to measles, 5 to phthisis, 3 to other tuberculous diseases, 4 to cancer, 1 to bronchitis, 1 to pneumonia, 2 to diarrhœal disease, and 1 to violence.

Infantile Mortality.—The rate for the year compares favourably with that for Rural England. The average rate for the past six years is 89 infant deaths per 1000 births. Of the six infant deaths last year 1 was due to diarrhoea, 1 to tuberculous disease, 1 to premature birth, and 1 to debility, 1 to pneumonia and 1 to other causes.

INFECTIOUS DISEASES.

The deaths due to the chief epidemic diseases were 3, one being due to measles and two to diarrhœal disease. No death was attributed to scarlet fever, diphtheria, or enteric.

After some years of almost complete freedom from outbreaks of notifiable infectious disease, the District suffered last year from scarlet fever in epidemic form. Sixty-two cases of scarlet fever and three of diphtheria were notified or discovered during the year. The record of notifiable disease for preceding years was :—1908, three cases ; 1909, four cases ; 1910, no case.

Scarlet Fever.—The 62 cases occurred in 34 houses. The type of the disease was generally very slight and no death resulted. The slight character of the disease was beyond doubt the chief cause of the spread of infection, many cases escaping recognition and attention, and affected children mingling with others, and being sent to school in some cases.

The origin, or introduction, of infection was not traced. The first case known was notified on March 12th, in a child attending the infant department of the Newport C.E. Schools. On making a visit of investigation I discovered another case in a child absent from this infant school. This department was closed from March 14th to the 21st, as a precaution. The next notifications were received on the 23rd and 24th of March of two cases in the mixed department of the same school. It became clear that infection was being spread by unrecognised cases, and the whole school was closed on March 24th and did not re-open till May 8th. In this period cases became more numerous, eleven cases coming to light in eight houses in the town during April. In May the largest number of cases was notified, 26 in 8 houses, but a number of these outbreaks dated from April, the first cases in three families which developed 4, 6, and 7 cases having been infected in April but not recognised. After May the outbreaks became more scattered, one case being notified in June, 5 in July, 3 in August, 8 in October, 1 in November, and 1 in December. The National School was not involved again, but the Grammar School in the town had a sharp

outbreak of six cases in May, following the return to school of two boys from a family. These boys, with several others of the family, had undoubtedly been 'missed' cases and were responsible for the outbreak in the Grammar School. In October two cases occurred in children attending the Roman Catholic School. The School was closed for a week as a precaution, and to allow of disinfection, one case having been found attending school while infected.

I visited the Elementary Schools frequently, and visited absentees and suspected cases in the town. The Sanitary Inspector also made frequent inquiries to discover suspected cases. Notified cases of the poorer class were promptly removed to the isolation hospital, so long as room could be found for them. Thirty-seven of the sixty-two cases were taken in at the hospital during the year. By my advice, Public Caution handbills were printed and freely circulated, the Inspector making a house to house distribution in some affected areas, and copies being left at the schools, to be sent out in the case of absentees, and the teachers were advised to exclude all children to whom any suspicion attached and send a caution bill to the parents.

In two cases the Council took proceedings against parents for failure to notify cases and for exposure of infected children in public. One case was that mentioned above, where the return of two boys to the Grammar School from an infected house was followed by an outbreak of six cases in the school. A conviction was obtained, and a penalty, with costs, amounting to £2 8s. was inflicted. The magistrates held that the parents had not taken reasonable care, and should have known, or suspected, the nature of the illness in their children, and not have allowed their return to school. In the other case, where two children had been sent back to the National Schools after very slight attacks of scarlet fever, and were found to be peeling, the parents were cautioned by the bench, no fine being inflicted. There is no doubt that these prosecutions did much good in calling public attention to the need for greater care on the part of parents in attending to slight cases of illness in their families at a time when infectious disease is prevalent.

Diphtheria.—Three cases occurred, one in February, one in October, and one in December. The last was a case of imported infection. There was no spread in any of these.

Diphtheria (Antitoxin) Order, 1910.—The Council has arranged with a chemist in the town to hold a stock of antitoxin on their account, and to issue it to medical men for use in cases of the poorer class. It was supplied in two of the above cases.

Measles.—There was some prevalence of measles in the summer, and one death occurred. The National Schools were closed for a month in September in consequence of reduced attendance.

PHTHISIS.

Five deaths were due to phthisis, as against 4 in 1910 and 3 in 1909, the average number of deaths for the past ten years being 4, giving an average death-rate in excess of that of the County. This excess is probably attributable to the bad housing conditions of the poorer quarters, and to the presence in them of a poverty stricken class of deficient stamina.

Four notifications were received. These were poor-law cases in the Workhouse Infirmary, only one of whom was a resident of the District. Special returns were received from the Registrar of four deaths from phthisis. The Inspector visited the house in each case and carried out or supervised disinfection, and left handbills of advice for the household.

ISOLATION ACCOMMODATION.

The Council maintains a small isolation hospital consisting of a cottage, with two wards attached, with capacity for two persons of each sex, and suffering from the same disease. A female caretaker resides in the cottage and undertakes the care of mild cases requiring no special nursing. The hospital was extensively used during the scarlet fever outbreak last year. Thirty-seven cases were admitted at various times, and the small accommodation was severely strained when nine, if not more,

children were in at one time. Fortunately there was no bad cases requiring special nursing and attendance. I need not repeat, but I would refer to my remarks and recommendations on the subject of this hospital in my last annual report. The County Medical Officer in his report upon isolation hospital accommodation in the County, recently issued, considers the Council's hospital inadequate, and suggests the formation of large areas in the County, for isolation purposes, in one of which areas Newport would be included. I am quite of opinion that this is the most desirable course.

Small-pox.—The Council continues the arrangement with the other Authorities in Newport Urban for joint action in an emergency of small-pox, a site for the erection of a tent being secured.

DISINFECTION.

The Sanitary Inspector disinfects infected rooms with a spraying apparatus. I have previously recommended the provision of a small steam disinfecter, and suggested an arrangement for joint purchase with the Rural District Council. Such an apparatus, if kept at the hospital, would be most useful for the proper disinfection of patients' clothing on discharge from the hospital, and for the efficient disinfection of bedding used by patients at the hospital. No joint action appears probable. In any comprehensive hospital scheme provision of steam disinfectors would naturally be included.

WATER SUPPLY.

The District has a public supply laid on to the houses and to public stand-pipes. The water is derived from three wells sunk and bored into the Bunter Beds of the New Red Sandstone at the south end of the District. The water is artesian, overflowing at the surface when the pumps are not at work. Two wells, known as "Baddeley's Wells," are close together at the engine house. The third well, known as "Walls Head" well, is about a quarter of a mile from the engine house, and connected to Baddeley's Well by a siphon. The Walls Head Well is a boring

carried down 75 feet into the sandstone, and was shown by a pumping test some years ago to yield by far the greater part of the supply. The upper 42 feet of this boring is lined with iron. This bore hole was cleansed out during the year.

The water is pumped from the wells by an oil engine and pump to a covered reservoir, whence it is laid on to the town. The reservoir holds 152,000 gallons, and gives a head of 130 feet above the centre of the town. The consumption averages about 30 gallons per head per diem.

Some 572 houses in the town are connected to the mains, and there are 22 free public hydrants which supply some 130 houses. These hydrants are an old public property, the product of 11 acres of land being devoted to their upkeep.

An extension of 76 yards of water main was laid in Water Lane. Twelve new connections to the main were made, supplying 25 houses, including the Workhouse, which had previously a pump supply. There are very few houses now supplied by pumps.

The Council adopted my recommendation as to having an analysis made of the water. A sample taken from the town mains was submitted to Professor Délépine in October, for chemical and bacteriological analysis. The results were very satisfactory, and the report was that "the water is of good quality." The bacteriological analysis, expressed as the average results of three examinations, showed 9 colonies growing in 3 days in nutrient gelatine at 20° to 21° centigrade, in one gramme of the water. *Bacillus coli communis* was not found in 100 c.c. These figures show high bacterial purity.

SEWERAGE AND DRAINAGE.

The town is well sewered, a new scheme having been completed, and the outfall works started, in 1904. All new sewers have manholes for flushing, with surface openings for ventilation. The outfall works are some distance outside the town, and consist of grit chamber, open septic tank, and single contact filter, the effluent passing through trenches over an area of land. This land is underdrained at a depth of six feet, the land effluent passing into the Strine Brook.

As regards new work during the year the Surveyor reports “120 yards of new 6-inch sewer were laid at Bromfield Place “to receive the drainage of the houses there, but the drains “have not yet been connected. Fifteen new drainage systems “were put in, and 10 were extended.” Progress continues to be made in bringing the drainage of old property up to a good standard under the attention of the Sanitary Committee, and the careful supervision of the Surveyor over the work done.

Excrement Disposal.—The Surveyor returns the number of water-closets in the District as 530, earth or pail closets 16, and privies 261. The privies are of the old and defective type, having underground vaults of considerable size and infrequently scavenged. Good progress is now being made in the conversion of privies into w.c.’s, a course which the Council is very desirous to see extended. Thirty old privies were converted into water-closets during the year, and 36 in the previous year. As I have often pointed out, the majority of the old privies are a danger to health, and by their sanitary insufficiency are susceptible of summary action for conversion, either as nuisances under the 91st section of the Public Health Act, 1875, or as insufficient closets under the 36th section of the same Act. In my opinion the abolition of these dangerous nuisances could be materially assisted and hastened by the Council taking definite statutory proceedings in a few cases.

SCAVENGING.

The scavenging of privies and removal of house refuse is undertaken by the Council, who have a staff and plant for the work, and a site outside the town for sorting and disposal of the refuse.

The Council has during the last four years taken active steps for the abolition of the old open ashpits, which I have frequently condemned, and for the substitution of sanitary ashbins, and the corresponding regular and frequent removal of house refuse. This action has been successful and satisfactory. A very small number of ashpits remain in use under special scavenging arrangements, otherwise an ashbin system, with weekly removal of refuse, is universal.

With regard to the scavenging of privies the notice given by the Council in August, 1910, that no privies would be scavenged at the public expense after June 24th, 1912, was designed to expedite the abolition of insanitary privies. If the Council finds it possible and practicable after that date to make a charge for scavenging privies it will no doubt have a good effect

HOUSING.

The average number of persons per house at the 1901 Census was 4.5, at the 1891 Census the number was 4.7. There are a number of worn out old houses in the town, mainly in the narrow lanes and passages opening off the main street. A number of these have been void for many years. Some that are occupied are barely fit for habitation, and special attention needs to be given to these and to other poor and old cottage property, of which the town has a considerable proportion. The *amount* of housing accommodation appears to be adequate to the population, but in the essentials of healthy habitation there is much that is seriously lacking. I repeat here the remarks I made in the last annual report that small, old, and defectively designed and built cottages, if damp, ill lighted and ill ventilated, are causes of ill health and deficient stamina in their occupants. That their rents are low is of no advantage to the District in my opinion, as their presence probably attracts and maintains a class sunk in poverty.

The work of inspection of the cottage property has been begun under the *Housing (Inspection of District) Regulations*. In consultation with the Inspector I scheduled some 300 houses in various courts, yards, and streets, for early inspection, and the following is an analysis of work done during the year under these regulations :—

ANALYSIS OF WORK DONE IN THE YEAR UNDER THESE REGULATIONS :—

Number of houses inspected	..	..	..	..	71
Number of these houses thought to be unfit for human habitation	..	..	..	..	8

Number of representations to Sanitary Authority of unfitness	8
Number of closing orders made	8
Number of houses in which defects were remedied without closing orders	6
Number of houses put into a fit state after closure ..	—
Number of houses still under consideration	65
GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION :—	

Defects of—

(1) Water supply	12
(2) Closet accommodation	57
(3) Drainage	41
(4) Dwelling house in regard to—	
(a) Light	19
(b) Free circulation of air	17
(c) Dampness	14
(d) Cleanliness	8
(5) Paving, draining and sanitary condition of yard or outhouse	33
(6) Arrangements for deposit and disposal of house refuse	5
(7) Rooms unfit for habitation under Sec. 17 (7) ..	—
(8) Other defects	184
(a) Roof	17
(b) Walls, ceilings, etc.	28
(c) Floors	57
(d) Stairs	6
(e) Sinks, and want of	10
(f) Pantries, light and ventilation	31
(g) Window and door frames	10
(h) Eaves gutters and spouting	22
(j) Doorsteps	3

These figures are an effective commentary on the statements I have often made as to the need for systematic inspection. The number of defects found gives a high average per house.

I made formal representation as to eight houses being unfit for habitation. Six of these were old void houses, most of which I had condemned some years ago, but which were brought up again for formal closure in order to bring them under the present powers of the Council for enforcing demolition.

The records of inspection in the District are kept on loose sheets, and have been considered by the Sanitary Committee at their ordinary meetings. Not much effective work of repair and reconstruction has so far followed the inspection, the notices served by the Council having been issued under Sec. 15 of the Housing, Town Planning, etc., Act, a section which has been found to apply to very few of them.

Closing orders in two occupied houses were made on November 8th, and these were not vacated at the end of the year.

I would urge upon the Council to use this inspection to bring about by all their powers an effective improvement in the condition and sanitary surroundings of the cottage property, paying special attention to conditions of deficiency of light and ventilation, and of dampness in houses. Some of the old property it will no doubt be found necessary to close from failure to get necessary reconstruction, or from radical impossibility of improvement, but many houses can be made serviceable and wholesome dwellings, by repairs to the structure, better light and ventilation, paving and drainage of yards, and abolition of privies. The standard should be that of soundness, wholesomeness, and cleanliness ; the carrying out of a few patching repairs should not be accepted.

Cases of over-crowding are met with from time to time. Four such were dealt with by notice.

PERMISSIVE POWERS.

The Public Health Acts (Amendment) Act, 1890, Part III., and the Infectious Disease (Prevention) Act, 1890, have been adopted, also Parts II., III., IV. (Secs. 52 to 56, and 58), and Part V. of the Public Health Acts Amendment Acts, 1907.

By-laws are in force in respect to :—

Nuisances,
New Streets and Buildings,
Slaughter-houses,
Common Lodging Houses.

SLAUGHTER-HOUSES.

There are 10 on the register. The Sanitary Inspector pays frequent and regular visits, and since his appointment has given very close and careful attention to meat inspection, and has put the control of the meat trade upon a much more satisfactory footing. He visits the slaughter-houses at the ascertained time of slaughter, for inspection of the meat. As regards tuberculous meat, he reports that tuberculous carcasses, or parts, were found in 21 cases, including one in which the carcase was found upon a midnight visit, when he was accompanied by Mr. W. T. Wilson, M.R.C.V.S., of the Harper-Adams Agricultural College, with whom the Council has arranged to give consultant assistance when necessary. In all these cases the carcase or part was surrendered and destroyed, the butchers, except in the case mentioned above, having invited the Inspectors examination of the meat. Twenty-two other carcasses were examined at the invitation of the butchers, including immature calves, dropsical sheep, foreign substances in the body, etc. Affected carcasses or parts were surrendered and destroyed.

Knackers.—Three knackers' licences have been issued by the Council, as described in last year's report. No infringement of the Knackers' Act came under notice.

Unsound Food.—The following articles of unsound food were examined by the Inspector on the information of the owner's agent, and were destroyed :—45 lbs. ham, 13 tins of fruit, 1 tin of herrings, 1 of salmon, 1 of paste, and 8 tins of condensed milk.

COMMON LODGING HOUSES.

There are three common lodging houses in the District. They are under regular inspection and are kept in accordance with the by-laws.

DAIRIES, COWSHEDS AND MILKSHOPS.

Regulations under the Dairies, Cowsheds, and Milkshops Order, 1885, were made in 1899. The number of dairies, etc., on the register at the end of 1909, was 18. The Inspector visits them periodically.

Bakehouses.—There are eight registered, including one underground. I visited these during the year and found them generally in good order, and to comply with the special provisions of the Factory and Workshop Act as to bakehouses. In one or two cases the floors were rough, and as is generally the case the floors were seldom or never washed. In my opinion a weekly scouring of a bakehouse floor is very desirable for proper cleanliness.

SANITARY INSPECTION.

Mr. Peter Darroch was appointed Sanitary Inspector in March, 1910. He has the Certificate of the Scottish Sanitary Association. He also holds office under the Council as Surveyor, Water Works Manager, and Superintendent of Fire Brigade.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911.

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	211
Number of legal notices sent	7
Number of informal notices sent	120
Number of such notices complied with	120
Number of letters written	113

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	21
(b) Deficient or objectionable water supply ..	—
(c) New drains to be constructed or old drains to be amended	22
(d) New closets to be provided or old ones to be amended in construction	12
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition	22
(f) Offensive accumulations of all kinds	36
(g) Animals so kept as to be a nuisance ..	3
(h) Houses overcrowded	4
Houses disinfected after infectious disease (other than phthisis)	21
Houses disinfected in cases of phthisis	4
Privies converted to water closets	31
Privies converted to earth closets	—
Plans for new houses passed	—
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	22
Repairs to public pumps and wells	—
New public wells	—
Private wells re-constructed or improved	—
Houses connected to public sewerage	15
Lengths of new sewers laid	120 yards.
Lengths of new water mains laid	76 yards.

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS FOR
THE YEAR ENDING 31ST DECEMBER, 1911 :—

Number of cowkeepers and milksellers on register	..	18
Number of premises—cowsheds	.. .. .	6
dairies	.. .. .	1
milkshops	.. .. .	2
Number of inspections	.. .. .	49

Defects found (1) in cowsheds—

(a) floor or cubic space..	..	..	..	1
(b) ventilation ..	..	..	..	1
(c) lighting ..	..	..	..	—
(d) structure of floor ..	..	..	..	1
(e) drainage ..	..	..	..	—
(f) cleanliness ..	..	..	..	3
(2) in surroundings of cowshed ..	..	..	..	—
(3) in sanitary condition of drains ..	..	..	..	—
(4) in sanitary condition of milkshops ..	..	..	..	—
(5) in water supply ..	..	..	..	—
Number of notices—verbal and written ..	..	..	..	6
Number of these notices complied with ..	..	..	..	6
Number of defects found and not yet remedied..	..	..	..	—

WHITCHURCH URBAN DISTRICT.

				1901	1911
Area in acres (exclusive of water)	..	..	..	4725	5757
Population (Census)	..	..	..	5221	—
Inhabited houses (Census)	..	..	..	1129	—
Persons per house	..	..	..	4.6	—
Rateable value, April 1st	..	..	..	—	£30608
A penny rate produces (about)	..	..	..	—	£96
Death-rate per 1000	..	..	..	13.7	13.5
Birth-rate per 1000	..	..	..	24.2	25.4

PHYSICAL FEATURES AND GENERAL CHARACTER.

The Urban District lies within the northern border of the County, and comprises a considerable area of agricultural land surrounding the town of Whitchurch. The general elevation varies from about 270 feet to 350 feet above Ordnance Datum. The subsoil is the red marl of the new red sandstone. The town occupies the centre and higher part of the District, the fall of the ground being from south and east to west and north-west, and the natural drainage by small brooks leaving the District towards the north-west, as tributaries of the Dee. The centre of the town is old and compact, considerable extensions of more recent buildings existing along some of the main roads radiating from the town. The surrounding parts of the District are entirely rural and agricultural, extending some two or three miles to the north-east and south-west of the town and to about a mile to north-west and south-east. Whitchurch is a market and residential town, and the land around is extensively employed for grazing and dairy farming. It is the centre and market of a large cheese making industry. There is a brewery, maltings, engineering works, a steam laundry and a creamery. A Secondary School is in course of erection in the town by the County Council.

The rainfall for the year recorded by the rain-gauge kept at the waterworks was 21.10 inches ; the number of rain days being 139. December was the wettest month with a fall of 3.6 inches. April, January, and July were the driest months with falls of 0.58, 0.65, and 0.68 inches respectively.

POPULATION.

The population of the Urban District was 5,221 at the 1901 Census, and 5,757 at the 1911 Census, an increase of 536 persons in the ten years. In the previous inter-censal period 1891—1901, the increase was 289, so that the population of the District shows a progressive and satisfactory increase.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death-rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Whit-church U.D.	Rural England	Whit-church U.D.	Rural England	Whit-church U.D.	Rural England
1906	27.9	26.3	15.9	15.0	91	115
1907	23.9	25.6	18.4	14.7	173	106
1908	24.2	26.2	14.1	14.7	66	110
1909	23.9	25.6	11.9	14.5	67	98
1910	22.4	25.0	15.2	13.6	117	96
1911	25.4	23.4	13.5	13.9	89	118

The birth-rate for the year is above the District's average, which has shown a considerable reduction in recent years.

The death-rate for the year is a fraction below that for Rural England, and is below the average rate for the District. Of the 78 nett deaths, one was due to whooping cough, 2 to influenza, 7 to pulmonary tuberculosis, 3 to other tuberculous diseases, 7 to cancer, 3 to bronchitis, 4 to pneumonia, 4 to diarrhœal disease, and 2 to violence.

The infantile mortality rate for the year is a favourable figure compared with that for Rural England, and is also considerably below the average rate in the District, which for the past six years has averaged 100 infant deaths per 1000 births. Of the 13 infant deaths in the year 1 was due to whooping cough, 2 to diarrhœal disease, 1 to tuberculous disease, 4 to premature birth, 2 to debility, 2 to convulsions, and 1 to pneumonia. The greater number of these deaths are from causes considered to be preventable, and I am of opinion that a system of health visiting, under the Notification of Births Act, by which mothers would be advised in the feeding and care of infants, and in the care of their own health, would do good.

INFECTIOUS DISEASES.

The deaths from the chief epidemic diseases were 3, viz. :—Whooping cough 1, and diarrhœal disease (under two years of age) 2.

The incidence of notifiable infectious disease during the year was very light.

Three cases of scarlet fever were notified, against 8 in 1910, and 1 case of diphtheria against 18 in 1910.

The cases of scarlet fever occurred in June, November, and December respectively. The cases were slight and the source of infection obscure. The usual precautions were taken, including a warning to the schools in order that a watch should be kept for any suspicious cases of illness.

Diphtheria.—The notified case occurred in February. No spread of infection occurred.

The practical disappearance of diphtheria from the District during the year is a satisfactory feature. For several years there had been a succession of small outbreaks and a persistence of infection. In the six years 1900 to 1905 only 11 cases in all were notified. In the following five years the number of cases was as follows :—26 in 1906, 25 in 1907, 20 in 1908, 17 in 1909, and 18 in 1910. The period of prolonged infection appears to be at an end, three cases only having come to light in a period of twenty months up to the end of last year.

Diphtheria (Antitoxin) Order, 1910.—The Council contracts with a chemist in the town to hold a stock of antitoxin and to supply to medical men for use in cases of diphtheria of the poorer class.

No case of enteric fever, puerperal fever, or erysipelas was notified. No school was closed on account of outbreaks of infectious disease during the year.

PHTHISIS.

The deaths from phthisis during the year numbered 7, against 4 in 1910, the average annual number of deaths in the past ten years being 4.2; this gives a rate considerably below that of the County for the same period.

One notification of a case of phthisis was received under the Public Health (Tuberculosis in Hospitals) Regulations. This was a case admitted to the County Sanatorium. The Inspector visited the house and disinfected the bedroom, and left a handbill of advice for the household.

In the seven fatal cases, special returns were received from the Registrar as to six, and the Inspector visited the houses, filled up enquiry forms, disinfected the rooms and left handbills of advice for the household. Of these six persons three appeared

to be cases not infected in the District. One was a visitor who died after nine weeks' stay in the District, one was a laundry worker, who had been living a year and a half in the District, and whose illness appeared to date back some two years, and the third was a domestic servant who returned home five months before death.

ISOLATION ACCOMMODATION.

There is no isolation hospital for ordinary infectious diseases for the use of the District.

A Joint Hospital Board exists for a number of Districts in which the Urban District is included, and an iron hospital for small-pox, with 8 beds, and caretaker's cottage and nurses' apartments, was erected at Prees Higher Heath, in the Wem Rural District, in 1903. The hospital is kept in readiness for use at all times.

DISINFECTION.

The Sanitary Inspector, either personally or by an assistant sprays infected rooms after the recovery of the patient in nearly all notified cases. Disinfectants are provided by the Council in all suitable cases. A 'Thresh' Emergency Steam Disinfector has been purchased by the Urban Council jointly with the Rural Council. The apparatus is housed at the Public Mortuary.

WATER SUPPLY.

The town has a public system of supply laid on to the houses. The Council's water works are at Fenn's Bank, about three miles south-west of the town. The water was originally derived from a number of shallow wells sunk into the 'drift' in grass land, near the pumping station. To these were added some years ago three bore holes sunk into beds of sand at points half a mile and more distant from the drift wells, this water being siphoned to the pumping station. The water from one of these bore holes became peaty and has been cut off. Extensions of the mains and increasing demand proved these sources inadequate, and

after careful investigation and consideration the Council in 1908 adopted the recommendation of the Surveyor to seek for a new source of supply in the drift area, below the clay which held up the water in the shallow wells. Eleven bore holes and six 3-inch copper tubes were put down to a depth of from 43 to 51 feet, and three new collecting wells were made in brickwork and cement. The result was very good, an additional yield of over 3,000 gallons per hour being secured.

A constant supply has been maintained throughout the year.

The water is softened by lime treatment to a hardness of about seven degrees, and pumped by steam power to a covered reservoir.

No new mains were laid during the year, and no special works found necessary at the wells or water works. The supply was laid on to 18 new houses.

SEWERAGE AND DRAINAGE.

The town is well sewered on modern lines. Ventilation is by 24 shafts in the town in addition to surface grids on the outer sections. For flushing there are 5 tanks on various lengths, and means also for free flushing of the outfall sewer from the basin end of the canal, and the public swimming baths afford a weekly flush in addition, through the summer, of some 36,000 gallons.

The outfall works are on Hadley farm, and consists of a septic tank, of capacity 25,000 gallons, or about five hours' flow of sewage, with two smaller tanks, and some 70 acres or more of rich pasture land available for irrigation. The tanks and distribution of the effluent receive constant attention by a man employed by the Council at the outfall. No sewerage extensions were made during the year.

New houses are adequately drained, and attention is being given in the housing inspection to the improving of the imperfect drainage of old property up to modern standards. Regulations under sec. 21 of the Public Health Act, 1875, for drainage connections, were framed in 1902.

Eighteen new houses were connected to the sewers. Notices were served for the re-construction of 17 drains.

Excrement Disposal.—The Surveyor returns the number of closets as follows :—Water closets 1,002, earth or pail closets 20, privies 257. The area served by privies includes Grindley Brook, which is outside the sewered area, and all the agricultural parts of the District. Within the limits of the town proper only 84 privies exist now. Four privies were converted into w.c.'s during the year. Eighteen new w.c.'s were erected.

I would repeat my recommendation that steps should be taken by the Council to enforce the conversion of the remaining vault privies in the town proper into w.c.'s. In all or nearly all cases the conversion could in my opinion be effected at the cost of the owner under the powers of section 36 or section 91 of the Public Health Act, 1875. But the Council has extended powers if it should be necessary to use them, under sections 39 to 42 of the Public Health Acts Amendment Act, 1907, which has been adopted.

The scavenging of privies is effected by householders, generally by arrangement with farmers or contractors.

Removal of House Refuse.—The system of public scavenging which was begun by the Council in 1907, and the extension of which I have noted from year to year in recent annual reports, was completed in April last year, to provide a regular system of removal from the whole of the sewered area of the District. This has resulted in a very marked improvement in the cleanliness of the surroundings of houses. Advantage has been taken of the housing inspection to enforce the provision of sanitary ashbins to a large number of houses.

HOUSING.

The average number of persons per house at the 1891 Census was 4.9, and at the 1901 Census 4.6. The number of houses in the District at the Census of last year is not yet published,

but the increase in houses appears to have kept pace with the increase of population. Plans for a number of new houses have been passed each year. Last year 18 new houses were built and occupied, making 91 new houses built in the past six years. The housing accommodation appears to be adequate in amount, and a large proportion of it is good and modern. The building has been on the outskirts of the town, and principally of artisan cottages of good appearance and design, well spaced out along open roads, with ample air space and good gardens. In the centre of the town there is some crowding of old cottage property in the yards, and in one or two narrow streets, many of the houses being very old and practically worn out. One such yard of 8 houses has been emptied of its occupants and shut up, by closing orders made by the Council in 1910, on my representations. Other property of this kind will probably have to be dealt with shortly.

Overcrowding in houses is occasionally, but not commonly, met with. Three cases were dealt with during the year.

Housing (Inspection of District) Regulations.—In consultation with the Council's Surveyor and Sanitary Inspector, I scheduled a large number of houses, principally in the older quarters of the town, for early inspection. A good start has been made, the following being an analysis of the work done during the year under these Regulations :—

Number of houses inspected	..	..	..	..	100
Number of these houses thought to be unfit for human habitation	..	..	..	..	—
Number of representations to Sanitary Authority of unfitness	..	..	..	..	—
Number of closing orders made	..	..	..	..	—
Number of houses in which defects were remedied without closing orders	..	..	..	..	85
Number of houses put into a fit state after closure	..				—
Number of houses still under consideration	..	..			15

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF
THIS INSPECTION :—

Defects of—

(1) Water supply	—
(2) Closet accommodation	19
(3) Drainage	33
(4) Dwelling house in regard to—	
(a) Light	1
(b) Free circulation of air	33
(c) Dampness	5
(d) Cleanliness	19
(5) Paving, draining and sanitary condition of yard or outhouse	15
(6) Arrangements for deposit and disposal of house refuse	84
(7) Rooms unfit for habitation under Sec. 17 (7)..	—
(8) Other defects	54
(a) Foodstores	29
(b) Guttering	10
(c) Chimneys	3
(d) Gullies	7
(e) Roofs	5

54

The records of inspection have been considered by the Council and orders made when necessary for work to be done. For the most part the work has been done under the Inspector's informal or preliminary notices. Eighty-five houses, out of 100 inspected, have been put in repair under the Inspector's notices and supervision. As a rule the necessary work has been secured, but difficulty is sometimes experienced in getting living room windows made to open, and in obtaining provision of food stores or pantries with adequate light and ventilation. Both these are matters of importance, and in the matter of the windows every room should have a window which can be made to admit fresh air when the doors of the room are closed. These requirements as to windows and food stores should be insisted upon in the case at least of all houses in which notices for other serious defects are being served.

I am glad to note that the paving of yards or parts of yards is being attended to in this inspection work.

PERMISSIVE POWERS.

The Council has adopted Part III. of the Public Health Acts (Amendment) Act, 1890, and the Infectious Disease (Prevention) Act, 1890, is in force in the District, with the exception of sections 5, 6, 15, and 17.

The Public Health Acts Amendment Act, 1907, Parts 2, 3, 4, 5, 6, 7, and 8, has been adopted. The first four parts refer to sanitary matters.

By-laws are in force with respect to :—

- Nuisances,
- New Streets and Buildings,
- Slaughter-houses,
- Common Lodging Houses,
- Tents, Vans, etc., used as habitations.

SLAUGHTER-HOUSES.

There are 7 slaughter-houses on the register. They are regularly inspected for conditions of cleanliness and conformity with the By-laws, and are visited at times of slaughtering for inspection of the meat. No tuberculous carcasses were found during the year. There is also one knacker's yard on the register.

DAIRIES, COWSHEDS, AND MILKSHOPS.

The Model Regulations are adopted. There are 24 cow-keepers and milksellers on the register, and the premises are inspected periodically, and found to be well kept. No action as to tuberculous milk, or veterinary inspection of the cows, has been taken. Two cowsheds had lighting and ventilation improved under the Inspector's notices.

COMMON LODGING HOUSES.

There are three on the register. The three houses are now held by one licensed keeper, and well administered. One house is kept for men only, a second for women and children, and the third for regular or weekly lodgers.

SANITARY INSPECTOR.

Mr. M. W. Sowden was appointed Sanitary Inspector in 1900 ; he also holds office under the Council as Engineer and Surveyor. He receives efficient assistance in the routine work of inspection from Mr. R. H. Marshall, the Superintendent of the Council's Public Baths.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	583
Number of legal notices sent	24
Number of informal notices sent	132
Number of such notices complied with	150
Number of letters written	75

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	6
(b) Deficient or objectionable water supply ..	4
(c) New drains to be constructed or old drains to be amended	17
(d) New closets to be provided or old ones to be amended in construction	23
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	5
(f) Offensive accumulations of all kinds	18
(g) Animals so kept as to be a nuisance ..	5
(h) Houses overcrowded	3
Houses disinfected after infectious disease (other than phthisis)	6
Houses disinfected in cases of phthisis	6
Privies converted to water closets	4
Privies converted to earth closets	—

Plans for new houses passed	18
Certificates issued for new water supply to new houses..	—
Houses connected to public water supply	18
Repairs to public pumps and wells	—
New public wells	—
Private wells re-constructed or improved	—
Houses connected to public sewerage	18
Lengths of new sewers laid	—
Lengths of new water mains laid	—
Proceedings before Magistrates— <i>Nil</i> .	

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS,
FOR THE YEAR ENDING 31ST DECEMBER, 1911 :—

Number of cowkeepers and milksellers on register ..	24
Number of premises—cowsheds	22
dairies	24
milkshops	2
Number of inspections	72
Defects found (1) in cowsheds—	
(a) floor or cubic space.. .. .	1
(b) ventilation	2
(c) lighting	2
(d) structure of floor	—
(e) drainage	1
(f) cleanliness	—
(2) in surroundings of cowshed	—
(3) in sanitary condition of drains	—
(4) in sanitary condition of milkshops	—
(5) in water supply	—
Number of notices—verbal and written	2
Number of these notices complied with	2
Number of defects found and not yet remedied.. ..	—

BOROUGH OF BISHOP'S CASTLE.

				1901	1911
Area in acres (exclusive of water)	..	..	..	1866	1866
Population (Census)	..	..	..	1378	1409
Inhabited houses (Census)	..	..	..	354	—
Persons per house	..	..	..	3.9	—
Rateable value, April 1st	..	..	..	—	£6569
A penny rate produces	..	..	..	—	£22
Death-rate per 1000	..	..	..	16.2	16.3
Birth-rate per 1000	..	..	..	14.7	19.1

PHYSICAL FEATURES AND GENERAL CHARACTER.

The Borough forms an area some three miles in length by a mean breadth of about one mile, lying within the south-west border of Shropshire, touching the Montgomeryshire border at one end, but otherwise surrounded by the Clun Rural District. It has the small town of Bishop's Castle about the centre. The elevation varies from about 500 feet O.D. in the valley at the south-east end to 1000 feet or more in the hill country forming the north-west end. The town lies on a hillside rising out of the valley, the main street rising steeply from about 600 feet to 700 feet O.D., and the houses are placed on either side of the street and about the crest of the hill above it. The subsoil is the Wenlock and Ludlow beds of upper Silurian age. The natural drainage is from north and west to south and east by small streams. the District lying upon the drainage system of the river Teme. The town is a market town and borough of great age, and the area outside is very sparsely populated. There are no industries in the District.

POPULATION.

The population of the Borough at the 1901 Census was 1,378, and at the 1911 Census 1,409, an increase of 31 persons during the ten years. In the previous ten years, 1891—1901, the population decreased by 208.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death-rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Bishop's Castle U.D.	Rural England	Bishop's Castle U.D.	Rural England	Bishop's Castle U.D.	Rural England
1906	22.9	26.3	20.0	15.0	31	115
1907	19.3	25.6	18.6	14.7	111	106
1908	21.4	26.2	18.6	14.7	100	110
1909	28.6	25.6	15.7	14.5	75	98
1910	21.3	25.0	19.9	13.6	100	96
1911	19.1	23.4	16.3	13.9	74	118

The birth-rate is as usual considerably below that for Rural England.

The death-rate is below the average for the District, which in the past six years has been 18.2 per 1000. The census taken last year has given me the opportunity of correcting the population figures on which the rates of recent years have been calculated. I have in the past ten years under-estimated the population, having assumed that the decrease in the inter-censal period 1891—1901 had been to some extent maintained during the past ten years. There was actually, however, a small increase. The under-estimation of the population had the effect of making the birth-rates and death-rates, given in recent annual reports, considerably too high, the death-rate for 1910 for instance,

which was calculated as 22.0 per 1000, should have been 19.9. The average death-rate in the District is in any case considerably above that for Rural England. There are no special facts in the returns of causes of death which suggest any ready explanation of the high death-rate. The mortality among infants, or from the common infectious diseases, for instance, is not above that of a healthy rural District. The death-rate from phthisis is above the average, but this would raise the whole death-rate by a small fraction only. The high death-rate and low birth-rate are consistent with a section of population having a proportion of aged persons much above the average.

Of the 23 nett deaths during the year 1 was due to whooping cough, 2 to phthisis, 2 to bronchitis, 4 to pneumonia, 1 to cirrhosis of the liver, 2 to nephritis, 2 to suicide, and 2 were deaths of infants. Five of the remaining 8 deaths were of persons aged 65 years and upwards.

The infant mortality rate for the year is favourable, and much below that for Rural England. It is based on two infant deaths, due to meningitis (not tuberculous) and convulsions, respectively. No infant death was attributed to diarrhoeal disease or to tuberculous disease. The average annual infant mortality for the past six years has been 80 deaths per 1000 births.

INFECTIOUS DISEASES.

One death was due to the chief epidemic diseases, viz. :—
One from whooping cough.

There were few cases of notifiable infectious disease, the total being four for the year, viz. :—Scarlet fever 1, and diphtheria 3. The case of scarlet fever occurred in November in a child attending the infant school. The source of infection was not traced and there was no spread.

Three cases of diphtheria were notified against 20 in 1910. All the cases were mild, and obscure in origin, and no connection was traceable between them. The first case, which occurred in January, was thought to be one of imported infection. The other two cases, arising in July and October, were of children attending the elementary school. No other suspected cases were reported from the school, and no spread of infection followed.

Diphtheria (Antitoxin) Order, 1910. The Council contracts with a chemist in the town to hold a stock of antitoxin for free supply to medical men in cases of the poorer class.

No outbreaks of measles, whooping cough, or of any of the minor infectious diseases occurred necessitating closure of the elementary school during the year.

PHTHISIS.

Two deaths were registered from phthisis during the year, the average for the past ten years being 2.1 per annum. This gives a rate about 50 per cent. above that for the County during the same period. The rate is based upon small numbers, and it is doubtful how far the cases have belonged properly to the District. One of the two persons dying last year was a stranger in the District, having come to the town only a month before his death, his previous residence for three years having been in a town at a distance. In the case of the other death there was a long history of phthisis in the family, members having died from this disease 17 years, 15 years, 10 years, and 3 years, previously.

One case of phthisis was notified during the year, and special death returns were received from the Registrar in the two fatal cases. The Inspector visited the premises and supervised disinfection.

ISOLATION ACCOMMODATION.

No isolation hospital exists for the use of the District. An unoccupied cottage which the Council had secured for use in any emergency of small-pox is no longer retained, the owner having determined the Council's tenancy.

DISINFECTION.

Disinfectants are provided by the Council where necessary, and the Sanitary Inspector has been provided with a spraying apparatus for disinfection of infected premises. Four houses were disinfected by him after infectious disease outbreaks during last year, and two after deaths from phthisis.

The Council has joined with the Clun Rural District Council in the purchase of a 'Thresh' Emergency Steam Disinfector. The apparatus is housed in a shed built for it at the Workhouse.

WATER SUPPLY.

The Council maintains a public system of supply laid on to the houses. The water is upland surface water from an uninhabited and uncultivated moorland catchment area, which is to all intents above suspicion as regards possibilities of contamination, and the water, when examined, has been found to be of excellent quality for drinking and domestic use. It is unnecessary to repeat a full description of the scheme; the main details were given in my annual report for 1906.

The supply has run short in unusually dry seasons, owing to leakage in the bed of the storage reservoir, which it has been found impracticable to remedy or prevent. From this and other causes the supply was short and intermittent during the dry summer of last year. It was found necessary to turn the water off at night, and from sections of the town in turn, for some four months until the end of October, when the supply became plentiful again and the service constant. Two Deacon water meters were fixed, one below and close to the service reservoir at the Cabin, and the other on the low pressure main

at the Town Hall. Three large leakages in house connections were at once traced and remedied after these were fixed, and in the Surveyor's opinion the shortage was principally due to leakages.

The Council, under the advice of their engineers, and owing to an increased consumption of water being anticipated in consequence of the new sewerage works and the conversion of privies into water closets, resolved to instal an oil engine and pump, in order to supplement the supply by pumping into the mains from the stream at a point a little below the reservoir. This pumping plant was fixed towards the end of the drought, and was used to a small extent, but the pump was found to need some alterations, which have now been carried out.

No new mains or extensions were laid during the year.

The population supplied by the scheme is about 1,200 persons. There are very few houses in the town to which the supply is not laid on. One new connection was made during the year.

SEWERAGE AND DRAINAGE.

The Council in 1909 obtained sanction for a loan of £4,600 to carry out extensions and improvements of the sewers of the town and to provide new outfall disposal works. The work was successfully carried out in 1910, and constituted a great sanitary advance. Nearly 4,000 yards of new sewer were laid, intercepting the sewage from defective old stone culverts, and from the various outfalls, and carrying it to the new outfall works where the sewage is treated by septic tanks and double filtration, through bacterial filter beds with rotary distributors. There are shaft ventilators at high points on the sewers, and arrangements for flushing.

Good work has been done in re-modelling old drains, 99 house drains having been relaid and connected to the new sewers during the past two years under the Inspector's notices and supervision. There is still a good deal of work of this kind to be done, and a steady system of improvement should be encouraged, and where necessary enforced.

Excrement Disposal.—The Sanitary Inspector returns the number of water closets as 203, 47 of these being hand-flushed ; pail closets 6, and privies 66. These figures refer to the town area, and do not include outlying parts of the district where privies are in general use. The figures indicate that w.c.'s are in a large majority in the town. I have often referred to the old privies, with vaults, as generally offensive nuisances, infrequently scavenged and sanitarily objectionable. Now that the new sewerage is available I would recommend the Council to press for the conversion of these into w.c.'s as rapidly as is practicable. As a rule they will be found susceptible of summary action under the powers of section 36, or section 91, of the Public Health Act, 1875. During last year six privies were converted into w.c.'s. In 1910 forty-nine were converted.

The scavenging of privies and removal of house refuse is left to the householders. A 'tip' for refuse is provided by the Council.

HOUSING.

The average number of persons per house was 3.9 at the 1901 Census. This is a low average. The average at the Census of last year is probably very close to this figure.

Two plans were passed during the year for new houses.

There is very little building of new cottages. A good deal of improvement is noticeable in the appearance and state of repair of old cottage property in recent years, and this appears to be due in part at least to much of the property having changed hands and having been acquired by the tenants and local owners. The town being very old, there are a good many cottages of old and poor construction, which need inspection and attention.

Housing (Inspection of District) Regulations.—No inspections were made during the year under these regulations. This was due in part to the necessary arrangements not having been made till late in the year, and to subsequent ill-health of the Surveyor

and Inspector. I scheduled some 20 houses for early inspection, and a start has now been made. I recommend the Council to use this inspection, and their powers, which are considerably extended by the Housing, Town Planning, etc., Act, 1909, to call for and enforce improvements in the sanitary conditions of houses, and of their surroundings, with special reference to houses which are found to be damp, and deficient in light and ventilation. Much improvement also could, and should be, made in the cleanliness of the surroundings of houses, by the paving of yards, or of the part of the yard contiguous to the house, and by drainage, and provision of proper receptacles for house refuse, manure, etc. There is room for work of this kind in much of the old property of the town.

PERMISSIVE POWERS.

The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, Part III., are adopted.

The Council has adopted Part IV. of the Public Health Acts Amendment Act, 1907. The sections in force are secs. 52 to 68 inclusive (with the exception of sec. 59), and give increased power in dealing with outbreaks of infectious disease. I am of opinion that the Council would now find it of advantage to adopt Part III. of this Act, which contains important sanitary provisions, especially in dealing with drains and closets, giving the Council more definite and ample powers in these respects.

By-laws have been made in respect to :—

Nuisances,

Cleansing of footways, removal of house refuse, cleansing
of earth closets, privies and ashpits.

Slaughter-houses.

Common Lodging Houses, and

New Streets and Buildings.

SLAUGHTER-HOUSES.

There are four slaughter-houses on the register. These are periodically inspected, and occasionally at times of slaughtering. No tuberculous carcasses were found.

Upon information received from the police the Inspector seized the carcasses of two sheep deposited for sale in the town. The carcasses were condemned, and a prosecution followed. The case was a bad one, the sheep having been bought with six others from a farmer, by two labourers, for 6s. each. The sheep were diseased and unable to stand. The flesh was quite unfit for food. A conviction was obtained and the labourers fined £1 and £2 and costs, respectively. The person who bought the two sheep from the labourers were also prosecuted, but the case was dismissed, the defence being that the sheep were not exposed by him for sale, but were intended for his own use.

DAIRIES, COWSHEDS AND MILKSHOPS.

Regulations have been adopted under the Dairies, Cowsheds and Milkshops Order, 1885. There are eight cowkeepers, etc., on the register. No action has been taken as to tuberculous milk, or the veterinary inspection of dairy cows.

COMMON LODGING HOUSES.

There are two in the town. They are registered and inspected regularly.

SANITARY INSPECTION.

Mr. A. Hamar was appointed Sanitary Inspector in 1886, and is not subject to re-appointment at stated intervals. He holds office under the Council also as Surveyor and Water Inspector.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the
above period, either in connection with outbreaks of
infectious disease, or in consequence of complaints,
or in the course of a systematic Sanitary Survey ..

Number of legal notices sent	—
Number of informal notices sent	10
Number of such notices complied with	9
Number of letters written	15

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(b) Deficient or objectionable water supply ..	—
(c) New drains to be constructed or old drains to be amended	5
(d) New closets to be provided or old ones to be amended in construction	5
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary con- dition	—
(f) Offensive accumulations of all kinds	4
(g) Animals so kept as to be a nuisance ..	1
(h) Houses overcrowded	—
Houses disinfected after infectious disease (other than phthisis)	4
Houses disinfected in cases of phthisis	2
Privies converted to water closets	6
Privies converted to earth closets	—
Plans for new houses passed	2
Certificates issued for water supply to new houses ..	—
Houses connected to public water supply	1
Repairs to public pumps and wells	—
New public wells	—
Private wells re-constructed or improved	—
Houses connected to public sewerage	10
Lengths of new sewers laid	—
Lengths of new water mains laid	—
Proceedings before Magistrates for sale of unsound meat (see previous page).	

INSPECTION OF DAIRIES, COWSHEDS, AND MILKSHOPS
FOR THE YEAR ENDING 31ST DECEMBER, 1911 :—

Number of cowkeepers and milksellers on register ..	8
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BOROUGH OF WENLOCK.

				1901	1911
Area in acres (exclusive of water)	22522	22522
Population (Census)	..	..	..	15866	15244
Inhabited houses (Census)	..	..	..	3568	—
Persons per house	..	..	..	4.4	—
Rateable value, April 1st	..	..	..	—	£62986
A penny rate produces	..	..	..	—	£240
No. of Parishes	..	..	..	9	9
Death-rate per 1000	..	..	..	17.0	15.5
Birth-rate per 1000	..	..	..	29.4	21.8

The District comprises 22,522 acres, exclusive of water, being the largest Borough in area in the country. This area is of very irregular outline, but is, roughly, some ten miles in greatest length, from north to south-west, and has a mean breadth of some four miles, being narrowest where the Severn, traversing the District from west to east, makes a natural division, the part lying to the south of the river having three or four times the area of the northern part, though with less than half the population.

The District is for the most part a tableland lying at an elevation of from 400 to 600 feet or more; the Severn forming a deep cutting through this elevated land, its banks rising very steeply on either side from about 150 feet O.D. at the water level to the general height of about 500 feet O.D. The central and eastern part, nearly half the area, lies upon the coal measures. To the west the formation is the Wenlock and Ludlow beds of Silurian age, forming a considerable part of the southern division and extending also to a limited extent across the river in the northern division. Much of this ground lies in ridges with intervening valleys at a height of from 600 to 800 feet. At the

southern extremity the old red sandstone occurs. The natural drainage is to the Severn, by small streams falling as a rule steeply into the river within the District, but the southern part of the southern area drains to the south by small streams which meet the Severn some distance outside the District.

The District is in large part industrial, the chief industries being coal and iron mining, iron manufactures, and brick and tile works. There is also a large china factory. These industries are confined to the northern area together with a small part of the southern area near the river. The greater part of the southern area is entirely rural and agricultural, and thinly populated.

For purposes of local administration the Borough is divided into four wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These wards, with their area, population, and general character are as follows :—

Ward.	Area in Acres.	Census Population, 1901 *	Situation.	General Character.
Madeley ..	2797	8442	North-of Severn	Urban & Industrial Coal and Iron.
Broseley ..	1962	3916	South-of Severn	Urban & Industrial Brick and Tile.
Much Wenlock	8751	2210	South-of Severn	Agricultural.
Barrow ..	9012	1298	Both sides of Severn.	Agricultural.

* The population figures for the parishes and wards at the Census of last year are not yet published.

MADELEY WARD.—This area consists of Madeley Parish, and lies upon the coalfield north of the Severn. It has relatively the densest population and comprises the township of Ironbridge, irregularly disposed upon the steep bank of the Severn, with the township of Madeley on the tableland about a mile distant to the north-east, and the more scattered district of Coalbrookdale adjoining on the west. It includes also the village of Coalport on the riverside east of Ironbridge.

BROSELEY WARD.—This area consists of Broseley Parish, and lies upon the coalfield south of the river, and comprises the township of Broseley on the high tableland above the river bank, and the village of Jackfield along the river side.

MUCH WENLOCK WARD.—This consists of Much Wenlock Parish, and is a large area of agricultural land with one or two considerable lime burning works, and includes the small market town of Much Wenlock lying in a large shallow basin on the limestone at an elevation of some 500 feet.

BARROW WARD.—This comprises a large area of thinly populated agricultural country, comprising the parishes of Little Wenlock on the north of the Severn and the parishes of Benthall, Posenhall, Barrow, Willey, and Linley, on the southern side. The population is very scattered and there is no considerable collection of houses

POPULATION.

The population of the Borough at the Census of 1901 was 15,866, and at the 1911 Census was 15,244, a decrease of 622 persons in the ten years. In the preceding ten years the population had increased by 163. The recent decrease has no doubt been caused by depression of some of the chief industries, notably in the brick and tile works of the Broseley Ward.

The following table shows comparative statistics for the past six years, for the District and for Rural England, *i.e.*, for England and Wales less the 213 larger towns. The Birth and Death-rates are calculated per 1000 of population, and the Infant Mortality on the deaths of infants under one year per 1000 born during the year :—

Year.	Birth-rate.		Death-rate.		Infant Mortality.	
	Wenlock Boro.	Rural England	Wenlock Boro.	Rural England	Wenlock Boro.	Rural England
1906	27.4	26.3	16.7	15.0	101	115
1907	24.0	25.6	15.4	14.7	94	106
1908	24.7	26.2	15.2	14.7	102	110
1909	26.2	25.6	16.4	14.5	79	98
1910	24.5	25.0	14.7	13.6	88	96
1911	21.8	23.4	15.5	13.9	87	118

As the Borough is divided into Wards, with separate Sanitary Administration, there is an advantage in calculating the vital statistics separately, and I have for several years now given the birth and death-rates, etc., for each of the four wards, as well as for the Borough as a whole. As I am not able to state the rates for each ward for the past year with any accuracy, owing to the population figures of the wards at the 1911 Census not being as yet available, I give below the nett numbers of births and deaths during the past six years for each ward. Rates can be calculated when the population figures are ascertained.

Madeley.				Broseley.			Wenlock.			Barrow.		
	Births.	Deaths.	Infant Deaths.	Births.	Deaths.	Infant Deaths.	Births.	Deaths.	Infant Deaths.	Births.	Deaths.	Infant Deaths.
1906	248	136	23	105	68	10	45	37	8	28	19	2
1907	203	126	22	97	73	11	53	29	2	19	11	—
1908	224	128	27	94	64	7	50	27	3	13	16	2
1909	218	132	24	99	56	4	57	43	—	28	21	4
1910	205	125	20	90	54	8	47	28	3	32	18	2
1911	187	135	16	81	49	6	47	29	3	18	24	4

The births in the Borough numbered 333, a number considerably below that of any of the preceding ten years. The fall in the birth-rate has been more marked since 1906, and has fallen below that of Rural England in the past six years.

The nett deaths for the year numbered 237, giving a death-rate of 15.5 per 1000 for the whole Borough. This is a fraction below the average rate for the past six years. The death-rate has fallen in the Borough during the past ten years but still stands above that of Rural England, the average for the six years 1906—1911 being, Borough of Wenlock 15.7, Rural England 14.4.

Measles caused 3 deaths, scarlet fever 1, pulmonary tuberculosis (phthisis) 22, tuberculous meningitis 4, other tuberculous diseases 5, cancer 15, bronchitis 16, pneumonia 20, diarrhœal disease 7, violence or accident 12, and suicide 4.

Infantile Mortality.—The deaths of infants under one year numbered 29, which gives a rate of 87 per 1000 born in the year. This compares very favourably with the rate for Rural England for the year, viz., 118. The average rate for the Borough for the past six years has been 92, so that the Borough has had recently a comparatively favourable infant mortality rate. But the District is one in which in my opinion a system of health visiting, in connection with the adoption of the Notification of Births Act, would be useful in instructing and advising mothers in the care and feeding of infants and in reducing infant mortality. Of the deaths of infants during the year, measles caused 1 death, diarrhœal disease 3, premature birth 8, congenital debility 10, convulsions 2, pneumonia 3, other causes 2. The greater number of these deaths would appear to be preventable.

Infant mortality rates being based upon the births and deaths of infants and not upon population, I am able to give the comparative rates for the wards of the Borough. They are as follows :—

	Deaths of Infants per 1000 born.	
	1911	6 years 1906—11
Madeley Ward	85	103
Broseley Ward	74	81
Wenlock Ward	64	63
Barrow Ward	222	101

INFECTIOUS DISEASES.

The deaths from the chief epidemic diseases were 11, viz. :—Measles 3, scarlet fever 1, diarrhœa and enteritis (all ages) 7.

One hundred and ninety-six cases of infectious disease were notified, against 101 in 1910, and 47 in 1909, the increase being entirely due to epidemic scarlet fever in mild form.

Scarlet Fever.—One hundred and ninety cases came to light, the majority occurring in Madeley Ward, where epidemic conditions had arisen, as previously reported, in the autumn of 1910. The outbreak had died down at the close of 1910, only 4 cases coming to light in December of that year. The District was not at any time free from infection, but comparatively few cases came to light in the first six months of last year, the numbers being 2 in January, 5 in February, 2 in March, 4 in April, 6 in May, and 8 in June. By this time, though the majority of the cases had affected Madeley town and schools, the infection had spread to Ironbridge, and in July 36 cases were notified or discovered, and the bulk of them in Ironbridge. The schools of that District did not appear to be specially involved until the third week of July, and they were closed on July 24th. Infection continued to spread rapidly in August, and the spread appeared to be from house to house, certain streets and groups of houses being particularly affected. Thirty-two cases came to light in August. After this month the outbreak declined, there being 17 cases in September, 11 in October, 12 in November, and 1 in December.

Altogether 140 cases were notified or discovered in 104 houses in Madeley Ward during the year.

The infection spread into Broseley Ward in the late summer, and 46 cases in 38 houses came to light, 27 of the cases occurring in Broseley and 19 in Jackfield. Four cases arising in Barrow Ward were connected with the Broseley outbreak. No case came under notice in Wenlock Ward.

The Broseley and Jackfield outbreaks were principally associated with school attendance. The cases were spread over the latter four months of the year, but were most numerous in September and October, following the re-opening of the schools after the summer holiday.

The chief features of the outbreaks were these:—The type of disease was very mild, very few cases of any severity occurring, and only one death resulting in 196 known cases. The spread of infection was no doubt due to the mild character

of the disease, and probably mainly by means of 'missed' cases or carriers of infection. Infection from house to house was specially marked in the more densely populated parts of Ironbridge, while in this area school influence was not marked, and the most rapid spread occurred while the schools were closed. No evidence was found implicating milk in the spread of infection. The precautions taken appeared to have little influence in limiting infection in Ironbridge, but were very successful in the case of Broseley and Jackfield. Isolation of cases in the homes was probably not much more effective in the one case than in the other, and no cases of direct exposure of patients were found, but the closer crowding of houses in Ironbridge favoured a-house to house infection by 'missed' cases.

All known cases were visited and precautions taken at the houses to secure isolation as far as possible, and disinfection was carried out by the Sanitary Inspector at the end of every case. Public Caution bills were circulated through the schools and otherwise, and efforts made to find unrecognised cases among absentees from school. The Sanitary Inspector was active in visiting such absentees, and in Ironbridge several slight cases were notified in consequence of the parents calling in a doctor upon the Inspector's request.

In Broseley and Jackfield the outbreaks, as stated, followed the re-opening of the schools after the holidays. The early cases were nearly all school children, and the supervision which, as School Medical Officer, I was able to exercise was successful in controlling the outbreaks. I paid repeated visits to the schools, and followed up cases of absentees. Several cases were in this way discovered. The teachers at my request excluded all children with any suspicious symptom and sent Public Caution bills to the homes of all doubtful cases of absentees. They also sent me lists of all children so excluded. By visiting such children and by examining others who had returned to school after slight illness, the schools were kept open and the outbreaks at no time became extensive. The teachers kept a very careful watch upon the children, and assisted greatly in the success of the precautionary measures.

Diphtheria.—Three cases occurred in two houses in Madeley Ward, and one case in Broseley. There was no spread of infection. No death has occurred from diphtheria in the past two years.

Diphtheria (Antitoxin) Order.—The Sanitary Committees have arranged with chemists in Ironbridge, Madeley, Broseley, and Wenlock, to hold a stock of antitoxin serum for free supply to medical men for cases of the poorer class.

No case of enteric or of puerperal fever was notified in the Borough during the year. Two cases of erysipelas were notified, one being fatal.

Measles was somewhat prevalent over the area north of the Severn in March and April, and led to the closure of most of the schools in this part for various periods. Three deaths resulted. No outbreak of whooping cough occurred during the year.

I have called attention in previous reports to the fact that the Borough, and especially the more populous Wards of Madeley and Broseley, has suffered from very severe and fatal outbreaks of these diseases, and I have pointed out that the employment of a trained nurse to visit cases in times of epidemic would serve to prevent loss of life and serious damage to health. In the last report I referred to an offer made by the Trustees of the Lady Forester Charity to provide the services of a trained nurse temporarily when required, if the Council, or the Committee concerned, provided board and lodging for the nurse. No action has been taken upon this, but I would again recommend the Council to adopt this offer.

PHTHISIS.

The deaths from phthisis during the year numbered 22, against 21 in 1910, the average number for the past ten years being 22.2 deaths per annum. This gives a rate of 1.43 per 1000, or some 50 per cent. above the rate for the County for the same period, and no tendency is shown so far to a reduction. The death-rates are higher in Madeley and Broseley than in

Wenlock and Barrow Wards, but are above the average for the County in all the Wards. Seven of the deaths were of persons connected with the tile and china making industries, both being industries associated with dust. Another death was that of a tobacco pipe maker.

Twelve notifications of phthisis were received during the year, 6 being poor-law cases, and 6 being hospital cases, notified from the County Sanatorium, which is situated at Shirlett in the Borough. All these cases were visited by the Sanitary Inspector, enquiry forms filled in, leaflets of advice supplied to the household, and disinfection supervised. In the fatal cases, special returns were received from the Registrars and the Sanitary Inspector visited and carried out or supervised disinfection of the rooms, after death, and left handbills for the household.

ISOLATION ACCOMMODATION.

An iron hospital for small-pox was erected and partly furnished by the Town Council in 1903, at the Batches, Broseley. I described the building and equipment in the annual report for 1903. It has not yet been occupied. The accommodation available is for four persons of each sex, suffering from the same disease.

DISINFECTION.

There is no disinfecting station in the Borough. The Sanitary Inspector, in the great majority of notified cases, sprays or fumigates infected rooms with disinfectants after recovery of the case. Disinfectants are also supplied in such cases for the disinfection of washable clothing and bedding.

I would repeat the recommendation for the provision of steam disinfecting apparatus for the efficient disinfection of non-washable clothing and bedding.

SCHOOLS.

The Town Council as the Local Education Authority has appointed me from year to year as School Medical Officer, the medical inspection of school children being carried out by three medical men in practice in the Borough. The Lady Forester Charity allows the services of its District Nurses as School Nurses. The nurses visit the schools regularly to inspect the children as to cleanliness and verminous conditions, and also attend to assist at medical inspections, and follow up the cases of children found defective.

As regards infectious diseases, the teachers are provided with forms for notifying to me all known cases of the minor infectious or contagious disease. The Sanitary Inspector notifies the schools as to any children medically notified, and also certifies to the teachers when disinfection has been carried out. In the case of a school child notified as having diphtheria, disinfection is not carried out until at least six weeks have elapsed, unless the case is previously cleared up bacteriologically, and the Inspector states on his certificate, on information received from me, whether the case has been declared free of infection by bacteriological examination or not. In the latter case the teachers are directed not to re-admit the child.

The arrangements mentioned above held good during last year. The Town Council has now transferred its powers as Local Education Authority to the County Council, and from the end of March in this year the medical supervision of the schools has passed under the control of the County Medical Officer.

School Closure.—The following schools were closed during the year on account of outbreaks of infectious disease, by the managers, under my advice or with my approval as School Medical Officer :—

Scarlet Fever.—Ironbridge C. of E., and Madeley Wood Wesleyan, in July; Madeley C. of E. and Madeley Wesleyan, and Madeley Wood Lloyds, in September.

Measles.—Little Wenlock, Madeley C. of E., Madeley Wesleyan, Madeley Wood Wesleyan, Madeley Wood Lloyds, and Ironbridge C. of E., all in April; Jackfield (Infants') in June.

Mumps.—Bourton and Much Wenlock (Infants') in February; Much Wenlock (Mixed) and Barrow, in March; Coalbrookdale (Infants') in November; Madeley Wesleyan, Madeley C. of E., and Madeley Wood Lloyds, in December.

WATER SUPPLY.

There are two public systems of supply. One for Madeley and Broseley Wards, and one for the town of Much Wenlock.

Broseley and Madeley Joint Scheme.—This important system was opened to public use in 1902. The supply is from a deep well and boring, in the Bunter beds of the new red sandstone, situated at Harrington, some three miles outside the District. I gave details as to the scheme in the annual report for 1903. The water has about 16° of hardness, and is of great purity.

The supply is constant and is laid on to public standpipes, and in increasing numbers to individual houses. The standpipes are numerous, and all houses within 200 feet of a standpipe, and having no other supply of wholesome water, are rated under powers obtained by the adoption of the Public Health (Water) Act, 1878. 794 yards of new mains were laid during the year, and 72 houses connected.

The Harrington system now supplies also the whole of the adjoining Urban District of Dawley, and the town of Shifnal.

Much Wenlock.—The town is supplied by a pumping scheme, sanctioned in 1899, from a deep well sunk in the Tannery field near the town. The water is artesian and is derived from the Shale measures of the Wenlock limestone. There are several public standpipes, but the water is now laid on to most of the houses. The yield of water in this well has fallen off considerably

in recent years, and in the drier months of the year it has generally been necessary to turn off the water during the night for some weeks or months. A deep bore hole was sunk in 1910 alongside the well, but unfortunately when tested was not successful in yielding additional supply.

The village of Bourton, in Wenlock Ward, has a supply laid on by the owner of the village. The water is collected from a spring and sent to a reservoir by a ram, and is distributed by gravitation to individual houses and to standpipes.

In the remaining portions of the District, forming a scattered country side, the water supply is from individual pumps and springs.

The schemes of water supply to the main centres of population have constituted the most notable advance in sanitation that the Borough has made. Coincidentally with the laying on of the public supplies the death-rate showed a definite drop, which has been maintained consistently. Another satisfactory feature has been the practical extinction of enteric fever. The association of this disease in the Borough with the use of polluted river water or that of other impure sources has generally been close.

SEWERAGE AND DRAINAGE.

The contour of the District affords generally good surface drainage, and most individual houses have a drain of some kind for the removal of liquid waste, and either connected to the sewers, road water drains, or culverted water courses in the more urban parts, or discharging direct into ditches or streams, or on gardens or fields, in the rural parts.

The sewers of the various towns in the Borough are for the most part of old construction, and appear to be, generally speaking, drains laid originally to take surface water, or as in the case of the steep hillside of Ironbridge especially, culverted water-courses. There are at present no works of sewage treatment,

the outfall of most of the main sewers being either directly into the Severn, or into streams which fall into the Severn within the District. The sewers being old, no flushing arrangements are provided, other than by surface water, and ventilation depends upon surface water openings, which are not as a rule trapped, and upon the fact that many sewers are culverted in short lengths and in other parts run into open half culvert channels.

The Sanitary Committee for Wenlock Ward have the improvement of the sewers of Much Wenlock town, and proper disposal of the sewage, now in hand. A scheme prepared by their engineers has recently received official sanction for the necessary loan of some £6,000, and tenders have been called for and the work put in hand. The outfall works will be placed at some distance below the town, and the carrying out of the scheme will be a great improvement in the sanitation of the town.

As regards the other towns of the Borough, in the Madeley and Broseley Wards, I stated my opinion in the last annual report that further and necessary sanitary progress in the Borough depends upon proper sewerage being provided. This matter of sewerage and sewage disposal is being pressed upon the attention of the Town Council by the Local Government Board and the County Council, with a view to the employment of an engineer by the Town Council to furnish preliminary proposals and estimates in order to ascertain "to what extent the present unsatisfactory condition of the sewerage in these two Wards could be remedied at a reasonable cost." The Committees of the Wards have the question under consideration.

No new lengths of sewer appear to have been laid during the year. Seventy-nine notices for improvement of house drains were served by the Inspector.

EXCREMENT DISPOSAL AND SCAVENGING.

There are no figures available to show the number of water-closets and of privies in the District. Certainly privies of old and objectionable type are in very large majority, and as I have

pointed out in previous reports no general action for their abolition has been possible in the absence of suitable sewerage facilities. Four privies were converted to water-closets during the year. Eighty-five notices were served for repair or amendment of closets.

The Madeley Sanitary Committee has undertaken the scavenging of their District. The work is done by contractors, who visit the premises when requisitions are sent in to the Surveyor. The work is heavy owing to the hilly nature of the District. A large amount of house refuse is collected and removed, but as regards privies the number of scavengings appears to average less than one per annum.

The Broseley Sanitary Committee provides a liquid manure cart for scavenging privy soil, and maintains several public ashpits which are emptied by a contractor from time to time, the scavenging of privies and domestic refuse being effected by occupiers or owners both here and in Much Wenlock.

HOUSING.

The number of persons per house at the 1901 Census was 4.4. The Census returns of 1901, showed that the Borough has a high proportion of small houses, of four rooms or less, when compared with the average of the Urban Districts of Shropshire. The great majority of houses in the District are old, and many are very old. There is much decaying house property difficult to deal with satisfactorily. Taken as a whole the standard of housing is low, and there is practically no building of new cottages, the rents of the old property and the means of the occupiers being generally small. Air space around houses is very generally adequate. In Ironbridge part of the town is somewhat crowded on area, but elsewhere there is as a rule good yard or garden space. Back to back houses are very rare, but a good many houses lack through ventilation, in some cases this being due to their being imbedded at the back into the hillsides. The

sanitary surroundings of cottages are very often unsatisfactory, due to the absence of paving of yards, to lack of sewerage or drainage facilities, and very generally to objectionable vault privies. Overcrowding is occasionally met with and is generally due to large families occupying small houses.

Housing (Inspection of District) Regulations.—The following is an analysis of work done during the year :—

Number of houses inspected	83
Number of these houses thought to be unfit for human habitation	7
Number of representations to Sanitary Authority of unfitness	7
Number of closing orders made	7
Number of houses in which defects were remedied without closing orders	25
Number of houses put into a fit state after closure ..	2
Number of houses still under consideration	54

GENERAL CHARACTER OF DEFECTS FOUND IN COURSE OF THIS INSPECTION :—

Defects of—

(1) Water supply	3
(2) Closet accommodation	33
(3) Drainage	34
(4) Dwelling house in regard to—	
(a) Light	13
(b) Free circulation of air	38
(c) Dampness	43
(d) Cleanliness	22
(5) Paving, drainage and sanitary condition of yard or outhouse	13
(6) Arrangements for deposit and disposal of house refuse	16
(7) Rooms unfit for habitation under sec. 17 (7) ..	—
(8) Other defects	114

The houses inspected were part of a number which I had, in consultation with the Inspector, scheduled for early inspection. Nearly all these houses were in Madeley and Broseley Wards. The defects found were those usual in the old property, deficiency of light and ventilation, and of drainage ; and dampness and dilapidation. I represented seven houses as unfit for habitation, five in Ironbridge and two in Broseley. Closing orders were made, and most of these houses remain closed, but two were put into a state of repair. Two other houses were closed voluntarily by the owners to avoid the cost of extensive repairs. Of 83 houses inspected 54 had not had their defects remedied at the end of the year, and remained under consideration. This is a heavy percentage, and I would advise the Committees to press on with this very important work and to use this inspection, and all their powers, to bring about a real improvement in the housing conditions.

PERMISSIVE POWERS.

The Infectious Disease (Prevention) Act, 1890, the Public Health Acts (Amendment) Act, 1890 (except Part IV.), and Parts 2, 3, 4, and 5 of the Public Health Acts Amendment Act, 1907, have been adopted.

By-laws were made in 1905 in respect to :—

Common Lodging Houses,
Slaughter-houses.

Regulations as to Dairies, Cowsheds, and Milkshops were adopted in 1905.

SLAUGHTER-HOUSES.

There are 17 in the Borough. They are not registered but are inspected periodically. They are not regularly visited at times of slaughtering for inspection of the meat. No tuberculous carcasses were found.

COMMON LODGING HOUSES.

There are two on the register. They are frequently inspected by the Sanitary Inspector.

DAIRIES, COWSHEDS, AND MILKSHOPS.

The number on the register is now 28, three having been added during the year. The Inspector has paid special attention to the registration and improvement of these places since the regulations were adopted.

SANITARY INSPECTION.

Mr. H. Herbert was appointed Sanitary Inspector for the Borough in 1901. He is an Associate of the Royal Sanitary Institute. He holds no other office under the Council.

THE FOLLOWING IS AN ACCOUNT FURNISHED BY THE
SANITARY INSPECTOR, OF SANITARY WORK FOR THE
YEAR ENDING 31ST DECEMBER, 1911 :—

Number of houses which have been inspected during the above period, either in connection with outbreaks of infectious disease, or in consequence of complaints, or in the course of a systematic Sanitary Survey ..	977
Number of legal notices sent	53
Number of informal notices sent	188
Number of such notices complied with	196
Number of letters written	839

PARTICULARS OF SANITARY MATTERS REFERRED TO IN
THE ABOVE NOTICES :—

(a) Houses to be disinfected after infectious disease	2
(b) Deficient or objectionable water supply ..	3
(c) New drains to be constructed or old drains to be amended	79
(d) New closets to be provided or old ones to be amended in construction	85
(e) Houses damp or dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition	91
(f) Offensive accumulations of all kinds	68
(g) Animals so kept as to be a nuisance ..	8
(h) Houses overcrowded	5
Houses disinfected after infectious disease (other than phthisis)	161

